



August 5, 2004

Utah Division of Oil, Gas & Mining
1594 W. N. Temple Suite 1210
Salt Lake City, Utah 84114-5801

RE: Wolverine Gas & Oil Company of Utah, LLC requests permission to drill the
Wolverine State #16-1 well as an exception to Rule R649-3-3

Gentlemen:

Pursuant to Rule R649-3-3 of the State's Oil & Gas Conservation regulations, Wolverine Gas & Oil Company of Utah, LLC, hereby makes application for approval to directionally drill an oil & gas well.

Wolverine Gas & Oil Company of Utah, LLC (Wolverine) proposes to drill the Wolverine State #16-1 well to a total depth of 8,075 feet. Wolverine is the only operator within a 460 foot radius.

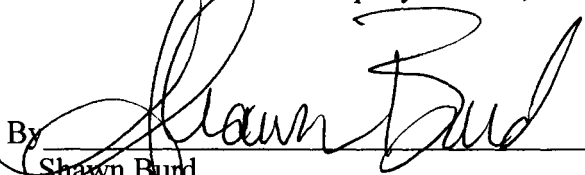
The mountainous terrain of the area is such that directional drilling is the most effective method to minimize surface disturbance. By locating the well pad on a relatively flat surface and drilling a directional well beneath this challenging topography, Wolverine can most effectively minimize surface disturbance and ensure proper utilization of resources.

Attached hereto is a plat as required by the Commissions rules and regulations.

If no objections are filed, the applicant requests that this application be approved. If objections are filed, applicant requests the matter be set for hearing and that it be advised of the hearing date.

Respectfully submitted,

Wolverine Gas & Oil Company of Utah, LLC

By 
Shawn Burd
Authorized Agent

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

FORM 3

AMENDED REPORT ☐
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

ML

5. MINERAL LEASE NO: # 46605
6. SURFACE: Fee

1A. TYPE OF WORK: DRILL ☒ REENTER ☐ DEEPEN ☐

7. IF INDIAN, ALLOTTEE OR TRIBE NAME:

B. TYPE OF WELL: OIL ☒ GAS ☐ OTHER _____ SINGLE ZONE ☒ MULTIPLE ZONE ☐

8. UNIT or CA AGREEMENT NAME: Wolverine Fed. Exploration Unit

2. NAME OF OPERATOR: Wolverine Gas and Oil Company of Utah, LLC

9. WELL NAME and NUMBER: Wolverine State # 16-1

3. ADDRESS OF OPERATOR: One Riverfront Plaza CITY Grand Rapids STATE MI ZIP 49503

PHONE NUMBER: (616) 458-1150

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL (FOOTAGES)

AT SURFACE: 1,736' FNL & 2,253' FWL - T23S-R1W, Sec 17 *SE NW*

AT PROPOSED PRODUCING ZONE: 660' FNL & 660' FWL - T23S-R1W, Sec 16 *NW NW*

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNW 16 23S 1W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE:

3.5 miles South of Sigurd

12. COUNTY:

Sevier

13. STATE:

UTAH

15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET)

appr. 200'

16. NUMBER OF ACRES IN LEASE

1,880 ac

17. NUMBER OF ACRES ASSIGNED TO THIS WELL:

40

18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET)

appr. 600'

19. PROPOSED DEPTH:

8,075

20. BOND DESCRIPTION:

individual well 19-10755-6

21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.):

GR-5,740'

22. APPROXIMATE DATE WORK WILL START:

9/15/2004

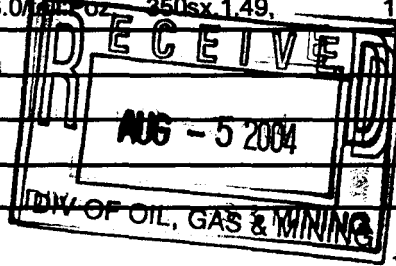
23. ESTIMATED DURATION:

40 days

24.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT
20	14	80	Conductor
12 1/2	9 5/8 36 ppf J55 STC	1,510	lead:c,360sx, 1.78, 12.8/tail:g, 280sx,1.20, 15.6
8 3/4	5 1/2 17 ppf L80 LTC	8,075	lead:Poz,750sx,1.76, 13.0/tail:Poz, 250sx,1.49, 13.4



25.

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- ☒ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
☒ EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER

- ☒ COMPLETE DRILLING PLAN
☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Richard Moritz

TITLE Vice President, Land & Legal

SIGNATURE *Richard Moritz*

DATE 7-26-04

(This space for State use only)

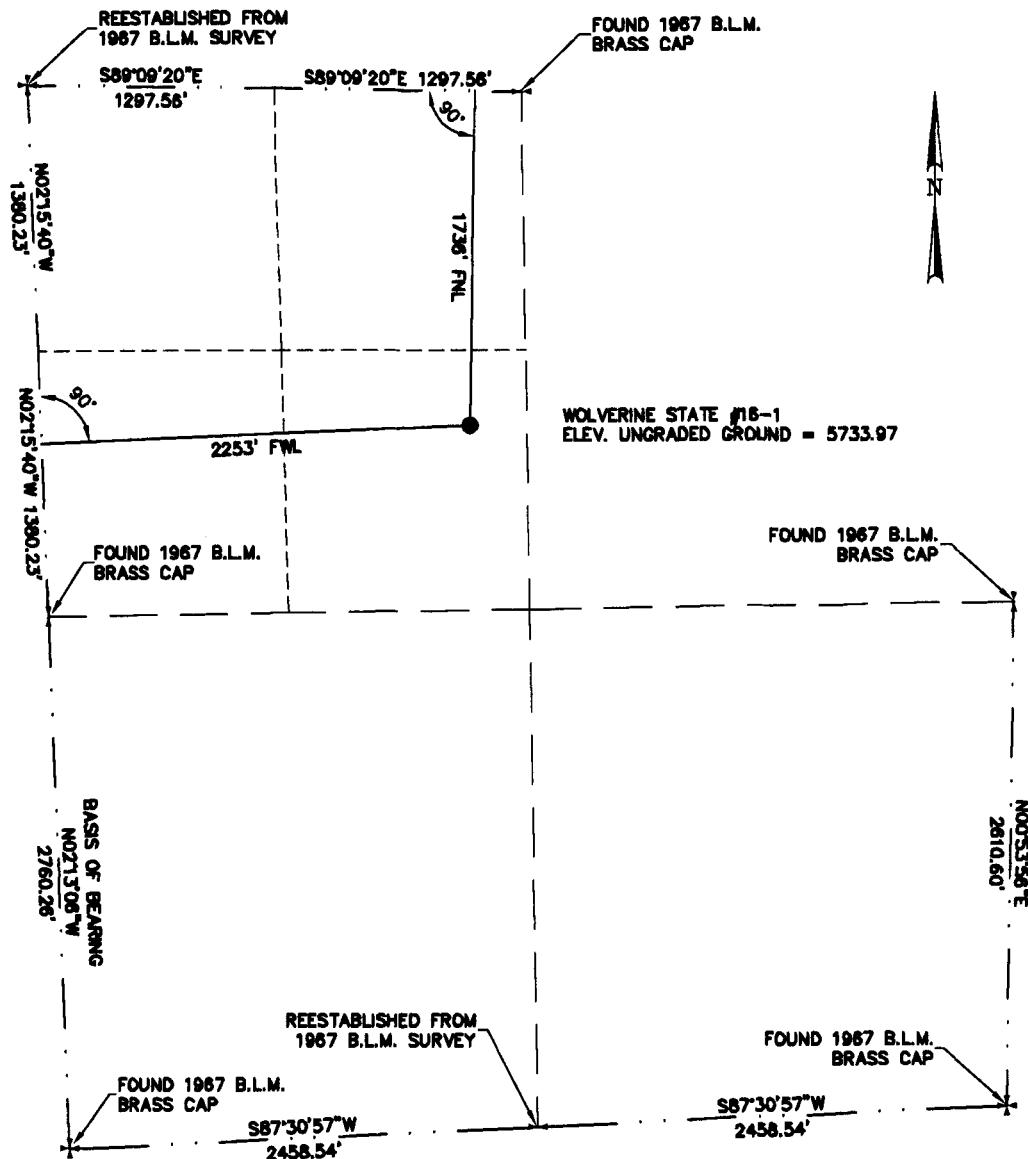
API NUMBER ASSIGNED: 43-041-30037

APPROVAL:

Surf 418952x BHL 420060 Y
4295396 Y 4295699 Y
38.80547 38.80830
- 111.93339 -111.92067

CONFIDENTIAL

Section 17, T.23 S., R.1 W., S.L.B. & M.



BASIS OF BEARINGS

BASIS OF BEARING USED WAS N02°13'08\"W BETWEEN THE SOUTHWEST CORNER AND THE WEST QUARTER CORNER OF SECTION 17, T.23 S., R.1 W., S.L.B. & M.

LATITUDE = 38°48'18.905\" (38.805251389)
LONGITUDE = -111°56'02.394\" (111.933898333)

PROJECT Wolverine Gas & Oil Company of Utah, LLC.

WELL LOCATION, LOCATED AS SHOWN IN THE SE 1/4 OF THE NW 1/4 OF SECTION 17, T.23 S., R.1 W., S.L.B. & M. SEVIER COUNTY, UTAH

LEGEND

- ⊕ = SECTION CORNERS LOCATED
- ⊕ = QUARTER SECTION CORNERS LOCATED
- = PROPOSED WELL HEAD

NOTE: THE PURPOSE OF THIS SURVEY WAS TO PLAT THE WOLVERINE STATE #16-1 LOCATION. LOCATED IN THE SE 1/4 OF THE NW 1/4 OF SECTION 17, T.23 S., R.1 W., S.L.B. & M. SEVIER COUNTY.

BASIS OF ELEVATION

ELEVATION BASED ON U.S.G.S. BENCH MARK LOCATED IN THE SW 1/4 OF SECTION 17, T.23 S., R.1 W., S.L.B. & M.



CERTIFICATE

THIS IS TO CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RYAN W. SAVAGE, L.S. #183343

DATE



Jones & DeMille Engineering

1535 South 100 West - Richfield, Utah 84701
Phone (435) 898-8266
Fax (435) 898-8268
www.jonesanddemille.com

Well Location Plat for

Wolverine Gas & Oil Company of Utah, LLC.

DESIGNED	SURVEYED T.W.G.	CHECKED R.W.S.	DRAWN K.B.B.	PROJECT NO.	SHEET NO.
DATE July 2004		DWG NAME Wells	SCALE 1\" = 1000'	0406-160	1



August 18, 2004

Utah Division of Oil, Gas & Mining
1594 W. N. Temple Suite 1210
Salt Lake City, Utah 84114-5801

RE: Wolverine Gas & Oil Company of Utah, LLC requests permission to drill the
Wolverine State #16-1

Gentlemen:

Pursuant to Rule R649-3-3-11 of the State's Oil & Gas Conservation regulations, Wolverine Gas & Oil Company of Utah, LLC, hereby makes application for approval to directionally drill an oil & gas well.

Wolverine Gas & Oil Company of Utah, LLC (Wolverine) proposes to drill the Wolverine State #16-1 well to a total depth of 8,075 feet and is an exception to Rule R649-3-3. Wolverine is the surface owner as well as the only leasehold operator within a 460 foot radius of the bore hole.

The mountainous terrain of the area is such that directional drilling is the most effective method to minimize surface disturbance. By locating the well pad on a relatively flat surface and drilling a directional well beneath this challenging topography, Wolverine can most effectively minimize surface disturbance and ensure proper utilization of resources.

Attached hereto is a plat as required by the Commissions rules and regulations.

If no objections are filed, the applicant requests that this application be approved. If objections are filed, applicant requests the matter be set for hearing and that it be advised of the hearing date.

Respectfully submitted,

Wolverine Gas & Oil Company of Utah, LLC

By


Shawn Burd

Authorized Agent

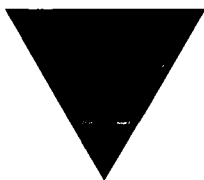
RECEIVED
AUG 19 2004

DIV. OF OIL, GAS & MINING

WESTERN LAND SERVICES - UTAH

310 South 100 East • Richfield, UT 84701 • Phone: (435) 896-1943 • Fax: (435) 893-2134

Web: www.westernls.com



WOLVERINE GAS AND OIL COMPANY
of Utah, LLC

Energy Exploration in Partnership with the Environment

December 29, 2004

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Revised APD Package – Wolverine State #16-1

Dear Ms. Whitney:

We are submitting the revised information to the permit submitted previously for Wolverine State #16-1. In this package, we are enclosing two sets of the following information:

- Updated Form 3 – Application for Permit to Drill
- Project Plan of Development and Master Surface Use Plan
- Well Plat showing the current surface location
- Vicinity Map
- Cut/Fill Diagram
- Drilling Prognosis with directional drilling plan

It is our understanding that these items will be combined with the items submitted previously, so as to complete the package. As you know, these wells are considered “wildcat” wells, so we are requesting this information be held confidential.

If you have any questions, please contact me directly. My contact information is contained within the letter address below (extension 129) and my email address is ehiguera@wolvgas.com.

Sincerely,


Edward A. Higuera, P.E.

Enclosures

c: Steve Hash and Shawn Burd w/encl.

RECEIVED

DEC 30 2004

DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

001

AMENDED REPORT ☐
(highlight changes)

APPLICATION FOR PERMIT TO DRILL		5. MINERAL LEASE NO: #46605	6. SURFACE: Fee
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>		7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
B. TYPE OF WELL: OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> OTHER _____ SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. UNIT or CA AGREEMENT NAME: Wolverine Fed Exploration Unit	
2. NAME OF OPERATOR: Wolverine Gas and Oil Company of Utah, LLC		9. WELL NAME and NUMBER: Wolverine State #16-1	
3. ADDRESS OF OPERATOR: One Riverfront Plaza CITY Grand Rapids STATE MI ZIP 49503		PHONE NUMBER: (616) 458-1150	10. FIELD AND POOL, OR WILDCAT: Wildcat
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1680' FNL & 2265' FWL of Sec 17 AT PROPOSED PRODUCING ZONE: 660' FNL & 660' FWL of Sec 16		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNW 16 23S 01W	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 3.5 miles south from Sigurd, Utah on SH 24		12. COUNTY: Sevier	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) approx 200'	16. NUMBER OF ACRES IN LEASE: 1880 ac	17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) ~ 600' (surf) & ~ 1867' (BHL @ prod zone)	19. PROPOSED DEPTH: 8,100	20. BOND DESCRIPTION: individual well 19-10755-6	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5736 GL	22. APPROXIMATE DATE WORK WILL START: 2/15/2005	23. ESTIMATED DURATION: 30 days	

24. PROPOSED CASING AND CEMENTING PROGRAM							
SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
36"	20"			100	Conductor		
17-1/2"	16"	65ppf	H40 BTC	600	Premium G w/ 2% cc	855 sx	1.17 15.8
15" **	13-3/8"	68ppf	J55 BTC	2,700	Premium G	1000 sx	1.17 15.8
12-1/4"	9-5/8"	47ppf	N80 LTC	6,750	50:50 POZ	725 sx	1.43 13.8
8-1/2"	5-1/2"	17ppf	N80 LTC	8,010	50:50 POZ	300 sx	1.23 14.35
**	13-3/8"				contingency string	only if reqd	

25. ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER	<input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Edward A. Higuera TITLE Manager - Development / Wolverine Gas&Oil

SIGNATURE *Edward A. Higuera* DATE 12/29/2004

(This space for State use only)

API NUMBER ASSIGNED: 43-041-30037

(11/2001)

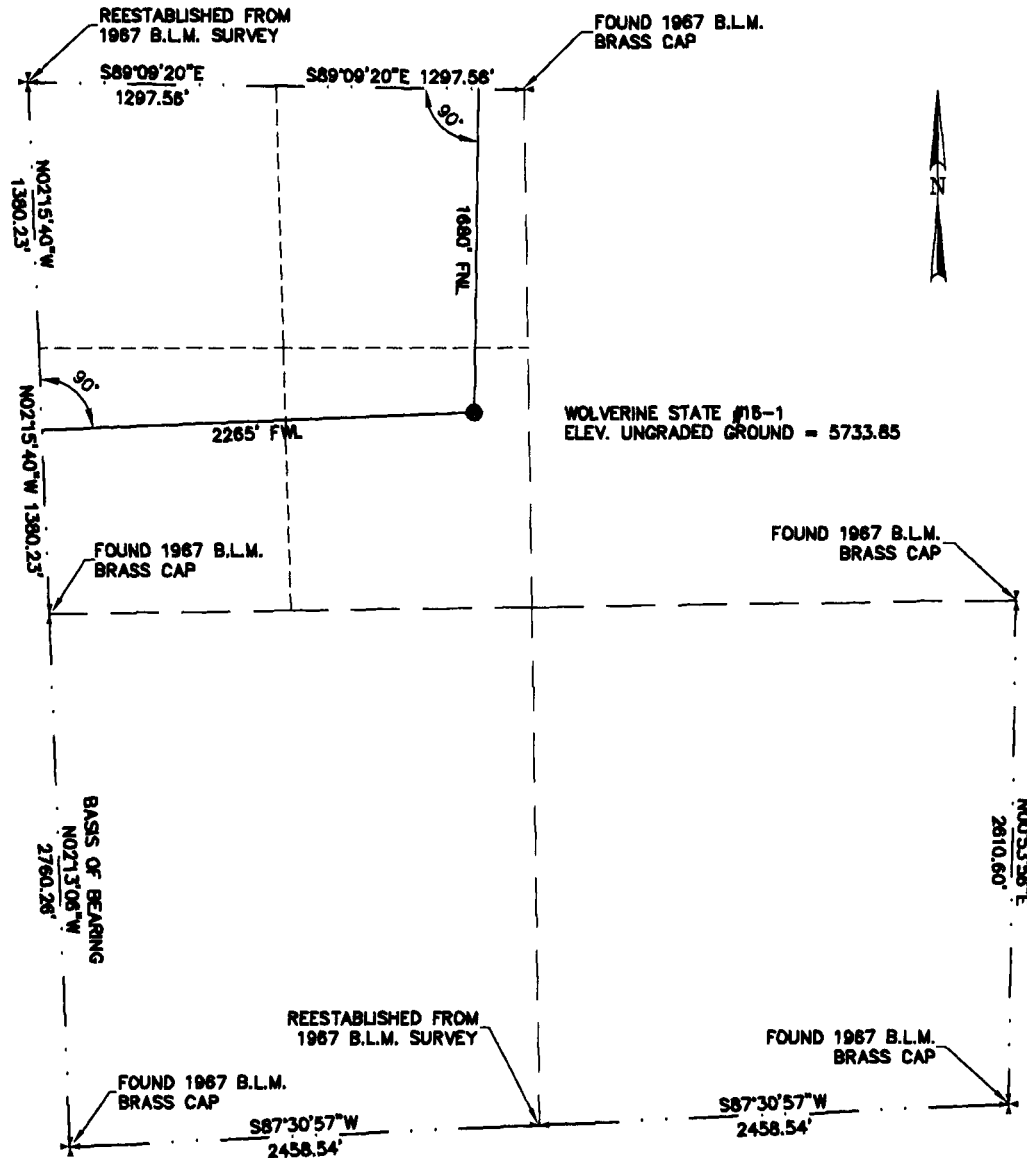
(See Instructions on Reverse Side)

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 12-30-04
By: *[Signature]*

RECEIVED
DEC 30 2004
DIV. OF OIL, GAS & MINING

Section 17, T.23 S., R.1 W., S.L.B. & M.



BASIS OF BEARINGS

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LATITUDE = 38°48'18.905" (38.805251389)
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PROJECT

Wolverine Gas & Oil Company of Utah, LLC.

WELL LOCATION, LOCATED AS SHOWN IN THE SE 1/4 OF THE
NW 1/4 OF SECTION 17, T.23 S., R.1 W., S.L.B. & M.
SEVIER COUNTY, UTAH

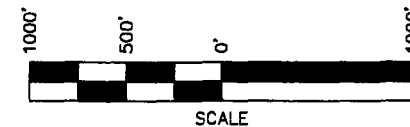
LEGEND

- ✕ = SECTION CORNERS LOCATED
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 ● = PROPOSED WELL HEAD

NOTE: THE PURPOSE OF THIS SURVEY WAS TO PLAT
THE WOLVERINE STATE #18-1 LOCATION.
LOCATED IN THE SE 1/4 OF THE NW 1/4
OF SECTION 17, T.23 S., R.1 W., S.L.B. & M.
SEVIER COUNTY.

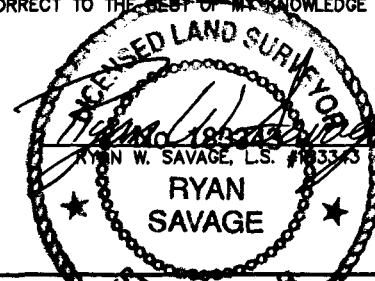
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FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER
MY SUPERVISION, AND THAT THE SAME ARE TRUE AND
CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



12/16/04
DATE

RYAN
SAVAGE

Jones & Beville Engineering

4635 South 100 West - Richfield, Utah 84701
Phone (435) 896-8266
Fax (435) 896-8268
www.jonesanddemille.com

Well Location Plat for

Wolverine Gas & Oil Company of Utah, LLC.

DESIGNED	SURVEYED T.W.G.	CHECKED R.W.S.	DRAWN K.B.B.	PROJECT NO. 0406-160	SHEET NO. 1
DATE Oct. 2004		DWG NAME Wells	SCALE 1" = 1000'		

WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC**DRILLING PROGNOSIS**

Wolverine State #16-1
NW NW SEC 16-T23S-R1W
SEVIER CO., UTAH

BRIEF DRILLING PLAN

Due to surface topography constraints, directionally drill a 8010' MD (6550'TVD) test of the Navajo 1 formation on a day work contract basis from Wolverine's present work area known as Drill Pad A-2 located in Sec 17 T23S – R01W, Sevier Co, UT. Please refer to the directional drilling plan attached for detailed hole angle, trajectory and target information. Deviation is the primary drilling concern in this area. No abnormal pressure or hydrogen sulfide gas is expected, however, an H2S detector will be utilized. The projected surface and bottomhole locations are to be as follows:

Surface Location: 1680' fnl & 2265' fwl of Sec 17 T23N – R01W
BHL @ top of NVJO1 (5830' TVD) 660' fnl & 660' fwl of Sec 16 T23N – R01W

20" conductor casing will be cemented to surface at approximately 100-120 ft BGL. 16" surface casing will be set & cemented to surface in a 17-1/2" hole deviated to approximately 3 deg at +/-600' (+/-600' TVD). A 12-1/4" hole will then be drilled to +/- 6750' (5330' TVD) deviated to approximately 47 deg from vertical by 2750' maintaining tangent to TD of 6750'. 9-5/8" protective casing will be set from surface to TD & cemented across the lowermost 2000'. An 8-1/2" hole will then be drilled to +/- 8010' (6550' TVD). 5-1/2" production casing will then be run from TD back to surface & cemented to approximately 300' into the 9-5/8" intermediate casing. In the event of lost circulation or other problems while drilling the 12-1/4" hole from 600' to 2700', the hole will be enlarged to 15" and a 13-3/8" casing string will be run from surface to TD (no deeper than 2700') and cemented into the surface casing. This is a contingency only.

EMERGENCY NUMBERS

Sevier Valley Medical Center	(435)-896-8271
Medical Helicopter	(800)-453-0120
Sheriff Department	(435)-896-2600
Fire Department-Richfield, UT	(435)-896-5479
Bureau of Land Management (Richfield):	(435)-896-1500
Bureau of Land Management (Salt Lake City)	(801) 539-4045
Utah Division of Oil, Gas and Mining (Salt Lake City):	(801)-538-5340

United States Bureau of Land Management

Contact Al McKee (801) 539-4045 24 hrs prior to spudding

Utah Division of Oil, Gas and Mining

Contact Carol Daniels (801) 538-5284, 24 hrs prior to spudding

GENERAL INFORMATION

OBJECTIVE: Navajo 1 @ 5830' (TVD)	ELEVATION: 5736' GL (actual)
PROJECTED TOTAL DEPTH:	8010' MD; 6550' TVD
SURFACE LOCATION:	1680' FNL & 2265' FWL Section 17-23S-1W
COUNTY: Sevier	STATE: Utah
DIRECTIONS TO LOCATION:	From the town of Sigurd, Utah go south approximately 3.5 miles on Hwy #24 to location on the left side of the road.

PROPOSED CASING PROGRAM:

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Measured Depth Set
	20"	.25 wall	X42	PE welded	100-120'
17-1/2"	16"	65#	H-40	BTC	0'-600'
*** 15"	13-3/8"	68#	J-55	BTC	0' - 2700'
12-1/4"	9-5/8"	47#	N-80	LTC	0'-6,750'
8-1/2"	5-1/2"	17#	N-80	LTC	0'- 8,010'

*** contingency only – set only if hole conditions dictate

Hole Size	Casing Size	Drift ID, in.	OD of Couplings	Annular Volume in OH, cf/ft	Annular Volume in Csg, cf/ft	Capacity of casing, cf/ft
30"	20"	Conductor	Na			
20"	16"	15.062	17.0	.7854	.7854	1.2476
*** 15"	13-3/8"	12.259	14.375	.2927	.2927	.8406
12 1/4"	9-5/8"	8.525	10.625	0.3127	0.4659	0.4340
8-1/2"	5-1/2"	4.767	6.050	0.2291	0.2291	0.1305

*** contingency only – set only if hole conditions dictate

GEOLOGIC INFORMATION:

Formation	Interval (TVD)	Interval (MD)	Lithology	Prod	Abnormal Psi
Arapien	Surf – 5530'	Surf – 6950'	sh, siltstone, salt, evaporites		
TwinCreek1	5530' - 5830'	6950' – 7260'	Carbonates	X	
Navajo 1	5830- 6350'	7260' – 7810'	Sandstone w/ minor shale	X	
Total Depth	6550'	8010'	Sandstone w/ minor shale		

CONSTRUCTION OF SURFACE LOCATION

360'x 180' Pad

150'x 100' x 10' Reserve Pit with a 12 mil synthetic liner

96" diameter tin horn cellar, 10' deep.

Flare pit a minimum of 100' from wellhead.

SURFACE HOLE: 0' to 600'

Directionally drill a 17-1/2" hole with a TCI rock bit, mud motor & MWD equipment to approximately 600' using fresh water and gel/lime sweeps when necessary (make hole to fit 16" casing). Loss circulation is not expected to be a problem in this interval. If losses do occur, begin pumping LCM sweeps. If loss circulation cannot be healed with ± 25 ppb LCM, consider dry drilling (no returns). Maintain hole direction to approximately 230 deg azimuth in keeping with the attached directional plan.

PRESSURE CONTROL & SAFETY EQUIPMENT FOR SURFACE HOLE**Bottom to Top**

20" drilling nipple – returns to mud pits – no pressure control

MUD PROGRAM FOR SURFACE HOLE

<u>DEPTH</u>	<u>MUD WEIGHT</u>	<u>TYPE</u>	<u>VISC</u>	<u>PH</u>	<u>FLUID LOSS</u>
0 -600'	8.4 – 8.9	FW/Gel/Lime	26-45	7-9	N/C

Note: Sweep hole every 100 – 200 feet or as needed for hole cleaning. Control the pH with Lime & Caustic to aid in gel flocculation for better carrying capacity.

CASING PROGRAM FOR SURFACE HOLE

<u>DEPTH</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>WT</u>	<u>GRADE</u>	<u>THREAD</u>	<u>REMARKS</u>
0 - 600'	16"	600'	65#	H-40	BT&C	

Casing Running Sequence:

guide shoe

1 jt of 16" 65# H-40 BT&C

Float collar

Balance of 16" 65# H-40 BT&C

Centralizers as reqd.

RU cement co., hold safety meeting, test lines, cement 16" casing per cement company recommendation. Displace with fresh water or mud if used.

CEMENTING PROGRAM FOR SURFACE HOLE

Lead:

855 sx Premium Class G
2% calcium chloride
0.25 lb/sx flocele

Mixed at: 15.8 ppg
Yield: 1.17 ft³/sx
Water: 5.01 gal/sx

MUST CIRCULATE CEMENT TO SURFACE If the cement does **not** circulate to surface contact the BLM and UDOGM office for further instructions and remedial actions.

WOC A TOTAL OF 24 HOURS:

Wait 4 hours with the hydrostatic pressure of the displacement fluid in place, then cut off conductor and weld on a 16-3/4" 3M x 16" SOW casing head. NU 20" 2M diverter w/ 7-1/16" HCR valve rigged to mud/gas separator, mud tanks and flare pit.

PROTECTIVE CASING HOLE: 600' to 6750'

Directionally drill a 12-1/4" hole with a PDC and/or a TCI rock bit, mud motor & MWD equipment to approximately 6750' MD using a low solids – non dispersed system converting to salt mud in the lower portion. Loss circulation may be a problem in this interval. If losses do occur, begin pumping LCM sweeps. If loss circulation cannot be healed with ±25 ppb LCM, consider dry drilling (no returns). If conditions are severe consider implementing a contingency for casing the problem zone with 13-3/8" csg as outlined above. Build hole angle to approximately 47 degrees by 2750' then maintain hole angle and direction to casing point in keeping with the attached directional plan. Protective casing should be set near the base of the Arapien interval to isolate potential poor hole conditions prior to drilling potential pay zones in the Twin Creek Lime.

PRESSURE CONTROL AND SAFETY EQUIPMENT FOR PROTECTIVE CASING STRING

Bottom to Top (see attached 2M Diverter diagram)

16-3/4" 3M x 16" SOW csg head.
16-3/4" 3M x 20" 2M spacer spool
20" 2M x 20" 2M x (2) 7-1/16" 2m side outlets
 one outlet 7-1/16" HCR valve w/ 6" blooie line to mud separator & flare pit
 one outlet (blank)
20" 2M Annular Preventer
20" 2M flanged btm drilling nipple w/ fillup line

Upper kelly cock valves with handles available
Safety valves and subs to fit all drill string connections in use
Inside BOP or float sub available

Testing Procedure:**Annular Preventer & HCR Valve**

The annular preventer will be pressure tested to 1000 psi for a period of ten minutes or until provisions of the test are met, whichever is longer. At a minimum, the pressure test will be performed:

- 1) When the annular is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The annular preventer will be functionally operated once per week. All BOP drills will be recorded in the IADC driller's log.

Accumulator:

The accumulator will have sufficient capacity to open the hydraulically controlled gate valve (if so equipped), close the annular preventer, and retain a minimum of 200 psig above pre-charge on the closing manifold without the use of the closing unit pumps. The reservoir capacity will be double the accumulator capacity, and the fluid level will be maintained at the manufacturer's recommendations. The accumulator shall have two (2) independent power sources to close the preventers. Nitrogen bottles may be one of the independent power sources and, if so, shall maintain a charge equal to the manufacturer's specifications.

MUD PROGRAM FOR PROTECTIVE CASING HOLE

<u>DEPTH</u>	<u>MUD WEIGHT</u>	<u>TYPE</u>	<u>VISC</u>	<u>pH</u>	<u>FLUID LOSS</u>
600' – 6750'	8.7 – 9.6	LSND	34-45	9.0-10.0	12cc or Less

If required, implement a natural breakover to a salt or gypsum system as salt and gypsum sections are drilled. If loss circulation becomes a problem use LCM sweeps to control seepage & clean hole. Implement casing contingency if absolutely necessary.

CASING PROGRAM FOR PROTECTIVE CASING HOLE

<u>DEPTH</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>WT</u>	<u>GRADE</u>	<u>THREAD</u>	<u>REMARKS</u>
0' – TD'	9-5/8"	6750'	47#	N-80	LT&C	

Rig up casing tools and run 9-5/8" protective casing as follows:

Float shoe, 2 joint of 9-5/8" 47.0# N-80 LT&C casing, float collar, 6 centralizers, middle shoe joint and one every other joint for 12 jts, run balance of 9-5/8" 47# N-80

CEMENT PROGRAM FOR PROTECTIVE CASING

725 sx (50:50) Poz: Premium	Weight:	13.8 ppg
3 % Bentonite	Yield:	1.43 ft ³ /sx
0.3% Halad R-344 (Low Fluid Loss Control)	Water:	6.45 gal/sx
15 % Salt		
0.3% D-AIR 3000 (Defoamer)		
0.25 lb/sx Flocele		

TOC at \pm 4750 ft

Calculate cement volume based on gauge hole plus 30% excess. Displace with mud.

Set slips, ND diverter stack, cut off, NU & test wellhead. Clean pits and prepare for next hole section.

PRODUCTION HOLE: 6750' to 8010'

Trip in the hole with an 8-1/2" insert bit, mud motor & MWD. Drill float, shoe and 20' of new hole. Perform an integrity test to 500 psi w/ 9ppg mud (10.5 ppg mud wt equivalent). Drill with a low colloid polymer system.

**PRESSURE CONTROL AND SAFETY EQUIPMENT FOR
PRODUCTION CASING STRING****Bottom to Top (see attached 5M BOP Stack diagram)**

- 11" 5M x 9-5/8" SOW csg head.
- 11" 5M x 11" 5M mud cross w/ (2) side outlets
 - one outlet 2-1/16 5M kill line
 - one outlet 3-1/16" 5M choke line
- 11" 5M double ram blowout preventers with 4-1/2" pipe rams top & CSO rams btm
- 11" 5M annular preventer
- 11" Rotating head w/ fillup line

Connect BOP to choke manifold with pressure guage

Upper kelly cock valves with handles available

Safety valves and subs to fit all drill string connections in use

Inside BOP or float sub available

Testing Procedure:Annular Preventer

The annular preventer will be pressure tested to 1500 psi for a period of ten minutes or until provisions of the test are met, whichever is longer. At a minimum, the pressure test will be performed:

- 4) When the annular is initially installed
- 5) Whenever any seal subject to test pressure is broken
- 6) Following related repairs and at 30 day intervals

The annular preventer will be functionally operated once per week.

Blowout Preventer

The BOP, choke manifold and related equipment will be pressure tested to 4500 psi, or 70% of the internal yield of the casing. Pressure will be maintained for a period of at least ten minutes or until the requirements of the test are met, whichever is longer. At a minimum the pressure test will be performed:

- 1) When the BOP is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills will be recorded in the IADC driller's log.

Accumulator:

The accumulator will have sufficient capacity to open the hydraulically controlled gate valve (if so equipped), close all rams plus the annular preventer, and retain a minimum of 200 psig above pre-charge on the closing manifold without the use of the closing unit pumps. The reservoir capacity will be double the accumulator capacity, and the fluid level will be maintained at the manufacturer's recommendations. The accumulator shall have two (2) independent power sources to close the preventers. Nitrogen bottles may be one of the independent power sources and, if so, shall maintain a charge equal to the manufacturer's specifications.

The accumulator pre-charge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six months thereafter. The accumulator pressure will be corrected if the measured pre-charge pressure is found to be above or below the maximum or minimum limits specified in Onshore Oil & Gas Order Number 2 (only nitrogen gas may be used to pre-charge).

Choke Manifold Equipment, Valves and Remote Controls

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration

A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will be maintained in the open position and will be closed only when the power source for the accumulator is inoperative.

Remote controls shall be readily accessible to the driller. Remote controls will be capable of both opening and closing all preventers. Master controls will be at the accumulator and will be capable of opening and closing all preventers and the choke line valve (if so equipped).

The choke manifold and BOP extension rods with hand wheels will be located outside the rig sub structure. The hydraulic BOP closing unit will be located at least twenty-five feet from the well head but readily accessible to the driller. Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill this well.

A flare line will be installed after the choke manifold, extending 100 feet from the center of the drill hole to a separate flare pit.

MUD PROGRAM FOR PRODUCTION HOLE

DEPTH	MUD WEIGHT	TYPE	VISC	pH	FLUID LOSS
6750' - 8010'	8.7 - 9.9	LC Polymer	34-50	9.0-10.0	10cc or Less

EVALUATION PROGRAM FOR PRODUCTION HOLE

At TD, circulate and condition hole clean for logs. Short trip to the intermediate casing monitoring well closely. TOH for logs.

Mudlogger: From 1500' to total depth.

Electric Logs:

Tool	PCP to TD
Dual Laterolog/GR/Caliper (DLL) (DIL if fresh mud system)	Yes
Micro Spherically Focused Log (MFSL)	Yes
CNL/LithoDensity/GR/Caliper (CNL/LD/GR/CAL)	Yes
Formation Micro Scanner/GR	Yes

DST: To be decided

Cores: To be decided

CASING PROGRAM FOR PRODUCTION HOLE

<u>DEPTH</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>WT</u>	<u>GRADE</u>	<u>THREAD</u>	<u>REMARKS</u>
0' - TD'	5-1/2"	8010'	17#	N-80	LT&C	

Rig up casing tools and run 5-1/2" production casing as follows:

Float shoe

2 joints of 5-1/2" 17# N-80 LT&C casing

Float collar

Centralizers as reqd.

Run balance of 5-1/2" 17# N-80.

CEMENT PROGRAM FOR PRODUCTION CASING

245 sx (50:50) Poz: Premium

2 % Bentonite

0.3% Halad R-344 (Low Fluid Loss Control)

5 % Salt

0.25 lb/sx Flocele

Weight: 14.35 ppg

Yield: 1.23 ft³/sx

Water: 4.81 gal/sx

TOC at \pm 6400 ft in 9-5/8" csg

Calculate cement volume based on log caliper \pm 25%. Displace cement w/water.

Set slips, ND BOP's, cut off, NU & test wellhead. Clean pits and release rig.

SCHEDULE

Location preparation is presently scheduled to begin on or about February 15, 2005

Drilling operations are anticipated to begin on or about February 15, 2005

end

PRESSURE CONTROL SYSTEM SCHEMATIC

Prepared by:
EXACT Engineering, Inc
Tulsa, OK (918) 599-9400

2M Diverter Stack — to be utilized while drilling holes for surface and protective casing thru Arapien formation section

Operator:

Wolverine Gas & Oil Co. of Utah, LLC

Well name and number

Wolverine State #16-1

Max. anticipated surface pressure 2000 psi

Annular B.O.P. 20" 2M W.P.

B.O.P.

Manual

X Hydraulic

Sour Trim

B.O.P. none Rams none" na W.P.
(Pipe/Blind)

B.O.P. none Rams " W.P.
(Pipe/Blind)

Check Valve none" W.P.

Valve none" W.P.

Valve blind flange W.P.

Valve 7-1/16" 2M "HCR"

Valve none

Kill Line Manifold

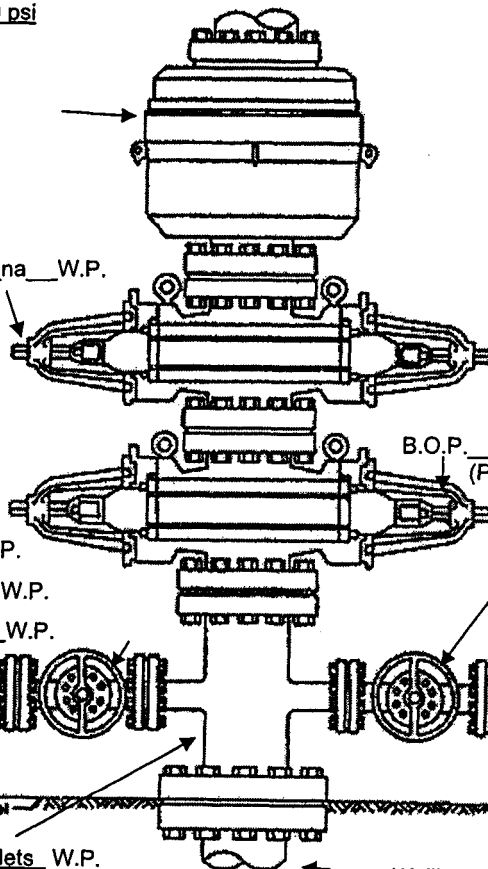
Manifold Line

Ground level

Line 6" 1000 W.P.

Spool 20" 2M x 20" 2M x 7-1/16" 2M outlets W.P.

Wellhead 20" 2M x 16-3/4" 3M adapter
w/ 16-3/4" 3M x 16" SOW csg head



PRESSURE CONTROL SYSTEM SCHEMATIC

Prepared by:
EXACT Engineering, Inc
Tulsa, OK (918) 599-9400

5M BOP Stack — to be utilized while drilling holes for production casing thru Twin Creek & Navajo intervals

Operator:

Wolverine Gas & Oil Co. of Utah, LLC

Well name and number

Wolverine State #16-1

Max. anticipated surface pressure 3000 psi

Annular B.O.P. 11" — 5M WP

B.O.P.
Manual
☒ Hydraulic
Sour Trim

B.O.P. 4-1/2" pipe Rams 11" — 5M W.P.
(Pipe/Blind)

B.O.P. blind Rams 11" — 5M W.P.
(Pipe/Blind)

Check Valve 2-1/16" 5M WP

Valve 2-1/16" 5M WP

Valve 2-1/16" 5M WP

Valve 3-1/16" 5M WP

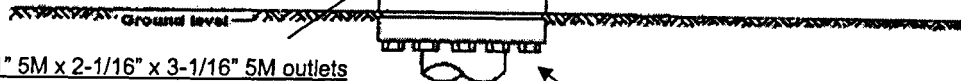
Valve 3-1/16" 5M WP

Kill Line Manifold

Manifold Line
Line 3-1/16" 5M WP

Spool 11" 5M x 11" 5M x 2-1/16" x 3-1/16" 5M outlets

Wellhead 11" 5M x 11" 5M spacer spool
w/ 11" 5M x 9-5/8" SOW csg head



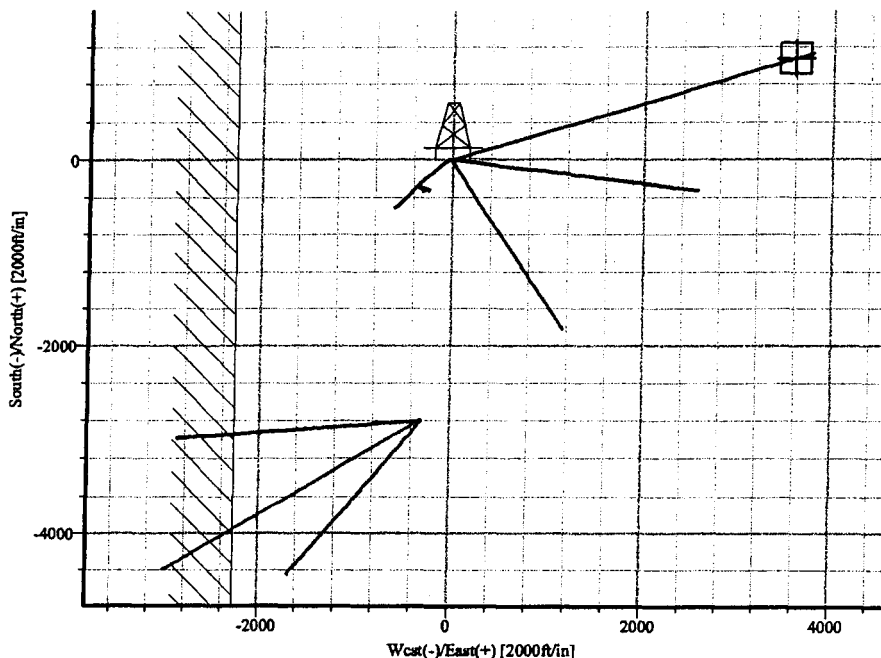
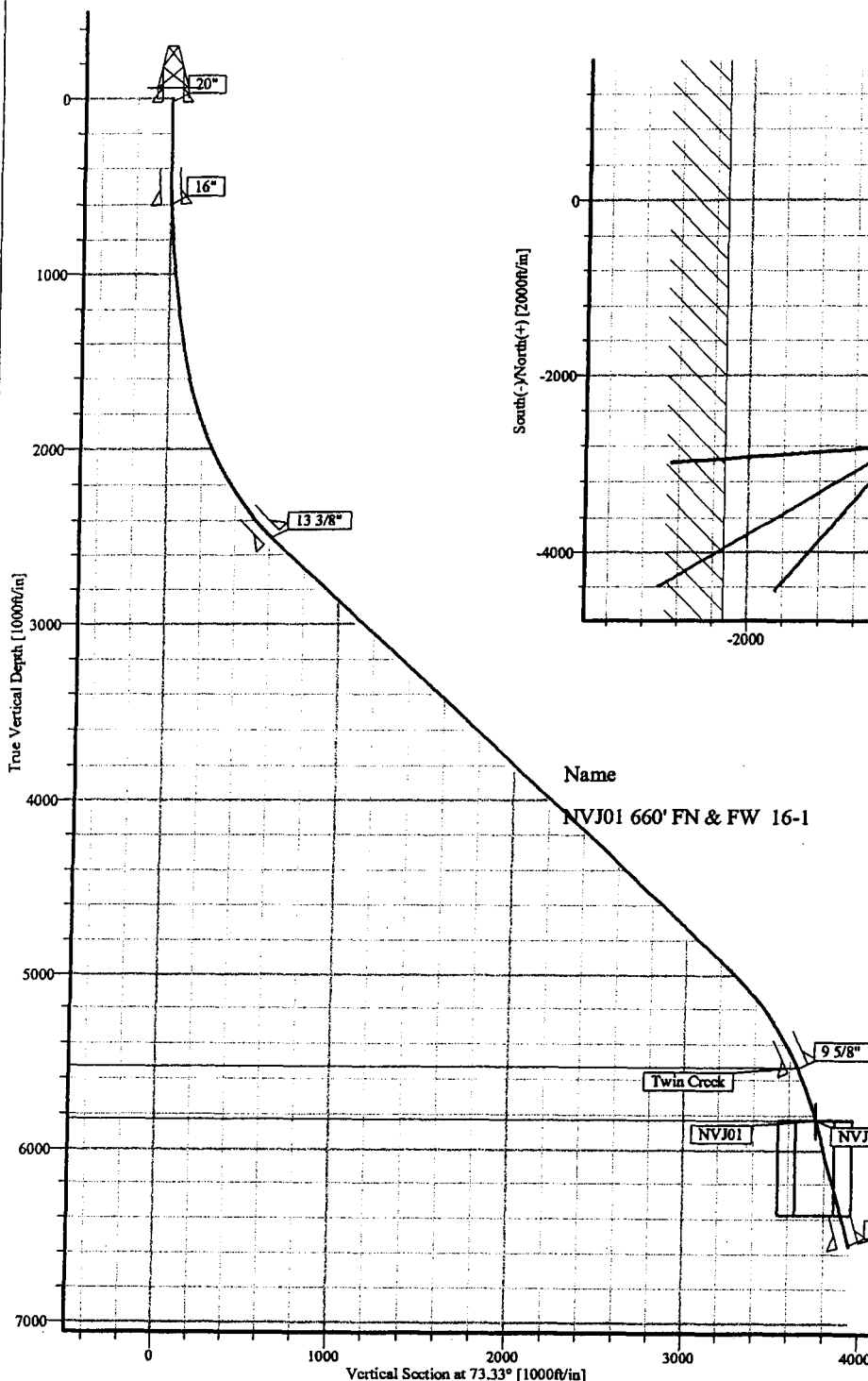
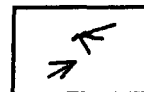
Azimuths to True North
Magnetic North: 12.95°



Magnetic Field
Strength: 52133nT
Dip Angle: 64.57°
Date: 7/6/2004
Model: igrf2000

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	73.33	300.0	0.0	0.0	0.00	73.33	0.0	
3	1506.1	10.00	73.33	1500.0	30.1	100.6	0.83	73.33	105.0	
4	2738.3	46.97	73.33	2564.4	195.7	653.8	3.00	0.00	682.5	
5	6196.4	46.97	73.33	4924.3	920.7	3075.3	0.00	0.00	3210.2	
6	7262.0	15.00	73.33	5826.0	1076.0	3594.0	3.00	180.00	3751.6	NVJ01 660' FN & FW 16-1
7	8011.5	15.00	73.33	6550.0	1131.6	3779.8	0.00	0.00	3945.6	



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
NVJ01 660' FN & FW 16-1	5826.0	1076.0	3594.0	Rectangle (330x330)

CASING DETAILS

No.	TVD	MD	Name	Size
1	20.0	20.0	20"	20.000
2	600.0	600.1	16"	16.000
3	2500.0	2646.3	13 3/8"	13.375
4	5534.0	6951.6	9 5/8"	9.625
5	6550.0	8011.5	7"	7.000

FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	5530.0	6947.2	Twin Creek
2	5826.0	7262.0	NVJ01

Plan: 16-1 (16-1/1)

Created By: Steve Schmitz

Date: 12/22/2004

Checked: _____

Date: _____



Wolverine Gas & Oil Co of Utah, LLC

CONFIDENTIAL

SECTION DETAILS

Sec	MD	Inc	Asd	TVD	+N-S	+E-W	DLog	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	73.33	300.0	0.0	0.0	0.00	73.33	0.0	
3	1506.1	10.00	73.33	1500.0	30.1	100.6	0.83	73.33	105.0	
4	2738.3	46.97	73.33	2564.4	195.7	653.8	3.00	0.00	682.5	
5	6196.4	46.97	73.33	4924.3	928.7	3075.3	0.00	0.00	3210.2	
6	7262.0	15.00	73.33	5826.0	1076.0	3594.0	3.00	180.00	3751.6	
7	8011.5	15.00	73.33	6550.0	1131.6	3779.8	0.00	0.00	3945.6	

Water Depth: 0.0
Positional Uncertainty: 0.0
Convergence: -0.28

Wolverine Federal 16-1
1680' FNL & 2265' FWL

NVJ01 660' FN & FW 16-1

WELL DETAILS

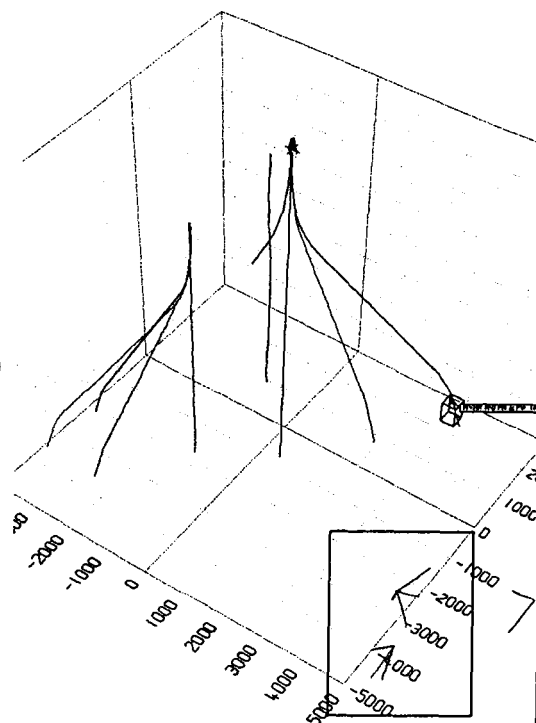
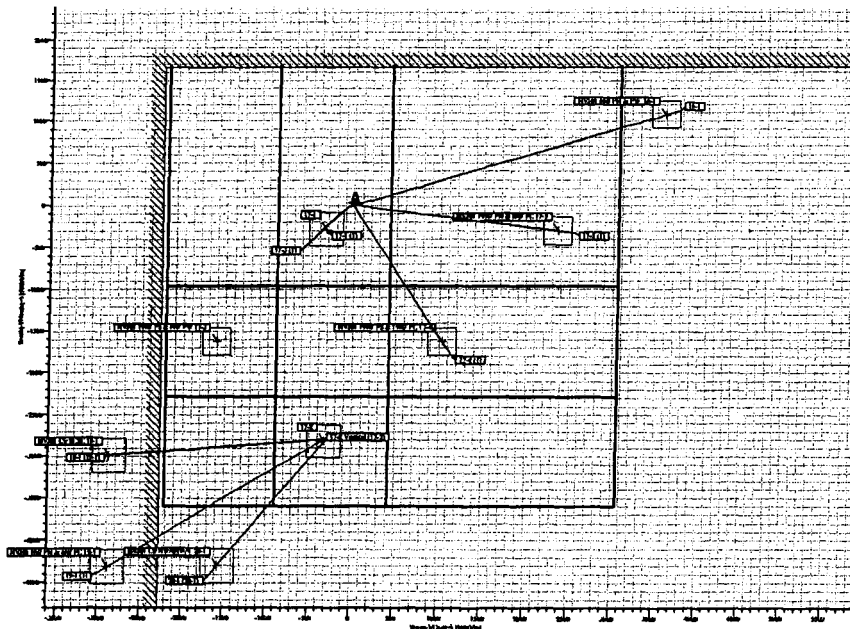
Name	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Slot
16-1	0.0	46.0	172191.06	1876400.49	38°48'18.900N	111°56'01.218W	N/A

TARGET DETAILS

Name	TVD	+N-S	+E-W	Shape
NVJ01 660' FN & FW 16-1	5826.0	1076.0	3594.0	Rectangle (330x330)

CASING DETAILS

No.	TVD	MD	Name	Size
1	20.0	20.0	20"	20.000
2	600.0	600.1	16"	16.000
3	2500.0	2646.3	13 3/8"	13.375
4	5534.0	6951.6	9 5/8"	9.625
5	6550.0	8011.5	7"	7.000



Weatherford Planning Report

Company: Wolverine Gas & Oil Co of Utah
Field: Sevier County, Utah
Site: Pad A-2
Well: 16-1
Wellpath: 1

Date: 12/22/2004 Time: 10:34:12
Co-ordinate(NE) Reference: Well: 16-1, True North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,73.33Azi)
Plan: 16-1

Page: 1

Field: Sevier County, Utah

Map System: US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

Map Zone: Utah, Central Zone
Coordinate System: Well Centre
Geomagnetic Model: Igrf2000

Site: Pad A-2
T23S R01W Sevier County, Utah
NW/4 SE/4 Sec 17

Site Position: From: Lease Line Northing: ft Latitude: ft
Position Uncertainty: 0.0 ft Easting: ft Longitude: ft
Ground Level: 0.0 ft North Reference: True
Grid Convergence: -0.28 deg

Well: 16-1

Slot Name:

Well Position: +N/-S 0.0 ft Northing: 172191.06 ft Latitude: 38 48 18.900 N
+E/-W 48.0 ft Easting: 1876400.49 ft Longitude: 111 56 1.218 W
Position Uncertainty: 0.0 ft

Wellpath: 1

Current Datum: SITE	Height	0.0 ft	Drilled From: Surface
Magnetic Data: 7/6/2004			Tie-on Depth: 0.0 ft
Field Strength: 52133 nT			Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)	+N/-S		Declination: 12.95 deg
ft	ft		Mag Dip Angle: 64.57 deg
			+E/-W
			Direction
			deg
0.0	0.0	0.0	73.33

Plan: 16-1

Date Composed: 7/6/2004
Version: 1
Tied-to: From Surface

Principal: Yes

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	73.33	300.0	0.0	0.0	0.00	0.00	0.00	73.33	
1506.1	10.00	73.33	1500.0	30.1	100.6	0.83	0.83	0.00	73.33	
2738.3	46.97	73.33	2564.4	195.7	653.8	3.00	3.00	0.00	0.00	
6196.4	46.97	73.33	4924.3	920.7	3075.3	0.00	0.00	0.00	0.00	
7262.0	15.00	73.33	5826.0	1076.0	3594.0	3.00	-3.00	0.00	180.00	NVJ01 660' FN & FW 16-1
8011.5	15.00	73.33	6550.0	1131.6	3779.8	0.00	0.00	0.00	0.00	

Section 1 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
20.0	0.00	0.00	20.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
100.0	0.00	73.33	100.0	0.0	0.0	0.0	0.00	0.00	0.00	73.33
200.0	0.00	73.33	200.0	0.0	0.0	0.0	0.00	0.00	0.00	73.33
300.0	0.00	73.33	300.0	0.0	0.0	0.0	0.00	0.00	0.00	73.33

Section 2 : Start Build 0.83

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
400.0	0.83	73.33	400.0	0.2	0.7	0.7	0.83	0.83	0.00	0.00
500.0	1.66	73.33	500.0	0.8	2.8	2.9	0.83	0.83	0.00	0.00
600.0	2.49	73.33	599.9	1.9	6.2	6.5	0.83	0.83	0.00	0.00
600.1	2.49	73.33	600.0	1.9	6.2	6.5	0.00	0.00	0.00	0.00
700.0	3.32	73.33	699.8	3.3	11.1	11.6	0.83	0.83	0.00	0.00
800.0	4.15	73.33	799.6	5.2	17.3	18.1	0.83	0.83	0.00	0.00
900.0	4.97	73.33	899.2	7.5	24.9	26.0	0.83	0.83	0.00	0.00

Weatherford Planning Report

Company: Wolverine Gas & Oil Co of Utah
Field: Sevier County, Utah
Site: Pad A-2
Well: 16-1
Wellpath: 1

Date: 12/22/2004 Time: 10:34:12
Co-ordinate(NE) Reference: Well: 16-1, True North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,73.33Azi)
Plan: 16-1

Page: 2

Section 2 : Start Build 0.83

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
1000.0	5.80	73.33	998.8	10.2	33.9	35.4	0.83	0.83	0.00	0.00
1100.0	6.63	73.33	1098.2	13.3	44.3	46.3	0.83	0.83	0.00	0.00
1200.0	7.46	73.33	1197.5	16.8	56.1	58.5	0.83	0.83	0.00	0.00
1300.0	8.29	73.33	1296.5	20.7	69.2	72.2	0.83	0.83	0.00	0.00
1400.0	9.12	73.33	1395.4	25.1	83.7	87.4	0.83	0.83	0.00	0.00
1506.1	10.00	73.33	1500.0	30.1	100.6	105.0	0.83	0.83	0.00	0.00

Section 3 : Start Build 3.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
1600.0	12.82	73.33	1592.0	35.4	118.4	123.6	3.00	3.00	0.00	0.00
1700.0	15.82	73.33	1688.9	42.5	142.0	148.3	3.00	3.00	0.00	0.00
1800.0	18.82	73.33	1784.4	51.1	170.6	178.0	3.00	3.00	0.00	0.00
1900.0	21.82	73.33	1878.1	61.0	203.8	212.8	3.00	3.00	0.00	0.00
2000.0	24.82	73.33	1970.0	72.4	241.7	252.3	3.00	3.00	0.00	0.00
2100.0	27.82	73.33	2059.6	85.1	284.2	296.7	3.00	3.00	0.00	0.00
2200.0	30.82	73.33	2146.8	99.1	331.1	345.6	3.00	3.00	0.00	0.00
2300.0	33.82	73.33	2231.3	114.5	382.3	399.1	3.00	3.00	0.00	0.00
2400.0	36.82	73.33	2312.8	131.1	437.7	456.9	3.00	3.00	0.00	0.00
2500.0	39.82	73.33	2391.3	148.8	497.1	518.9	3.00	3.00	0.00	0.00
2600.0	42.82	73.33	2466.4	167.8	560.3	584.9	3.00	3.00	0.00	0.00
2646.3	44.21	73.33	2500.0	176.9	590.9	616.8	3.00	3.00	0.00	0.00
2700.0	45.82	73.33	2537.9	187.8	627.2	654.7	3.00	3.00	0.00	0.00
2738.3	46.97	73.33	2564.4	195.7	653.8	682.5	3.00	3.00	0.01	0.11

Section 4 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
2800.0	46.97	73.33	2606.5	208.7	697.0	727.6	0.00	0.00	0.00	0.00
2900.0	46.97	73.33	2674.7	229.6	767.0	800.7	0.00	0.00	0.00	0.00
3000.0	46.97	73.33	2742.9	250.6	837.0	873.8	0.00	0.00	0.00	0.00
3100.0	46.97	73.33	2811.2	271.6	907.1	946.9	0.00	0.00	0.00	0.00
3200.0	46.97	73.33	2879.4	292.5	977.1	1019.9	0.00	0.00	0.00	0.00
3300.0	46.97	73.33	2947.7	313.5	1047.1	1093.0	0.00	0.00	0.00	0.00
3400.0	46.97	73.33	3015.9	334.5	1117.1	1166.1	0.00	0.00	0.00	0.00
3500.0	46.97	73.33	3084.2	355.4	1187.2	1239.2	0.00	0.00	0.00	0.00
3600.0	46.97	73.33	3152.4	376.4	1257.2	1312.3	0.00	0.00	0.00	0.00
3700.0	46.97	73.33	3220.7	397.4	1327.2	1385.4	0.00	0.00	0.00	0.00
3800.0	46.97	73.33	3288.9	418.3	1397.2	1458.5	0.00	0.00	0.00	0.00
3900.0	46.97	73.33	3357.1	439.3	1467.3	1531.6	0.00	0.00	0.00	0.00
4000.0	46.97	73.33	3425.4	460.2	1537.3	1604.7	0.00	0.00	0.00	0.00
4100.0	46.97	73.33	3493.6	481.2	1607.3	1677.8	0.00	0.00	0.00	0.00
4200.0	46.97	73.33	3561.9	502.2	1677.3	1750.9	0.00	0.00	0.00	0.00
4300.0	46.97	73.33	3630.1	523.1	1747.4	1824.0	0.00	0.00	0.00	0.00
4400.0	46.97	73.33	3698.4	544.1	1817.4	1897.1	0.00	0.00	0.00	0.00
4500.0	46.97	73.33	3766.6	565.1	1887.4	1970.2	0.00	0.00	0.00	0.00
4600.0	46.97	73.33	3834.8	586.0	1957.4	2043.3	0.00	0.00	0.00	0.00
4700.0	46.97	73.33	3903.1	607.0	2027.5	2116.4	0.00	0.00	0.00	0.00
4800.0	46.97	73.33	3971.3	628.0	2097.5	2189.5	0.00	0.00	0.00	0.00
4900.0	46.97	73.33	4039.6	648.9	2167.5	2262.6	0.00	0.00	0.00	0.00
5000.0	46.97	73.33	4107.8	669.9	2237.5	2335.7	0.00	0.00	0.00	0.00
5100.0	46.97	73.33	4176.1	690.9	2307.6	2408.8	0.00	0.00	0.00	0.00
5200.0	46.97	73.33	4244.3	711.8	2377.6	2481.8	0.00	0.00	0.00	0.00
5300.0	46.97	73.33	4312.5	732.8	2447.6	2554.9	0.00	0.00	0.00	0.00
5400.0	46.97	73.33	4380.8	753.7	2517.6	2628.0	0.00	0.00	0.00	0.00
5500.0	46.97	73.33	4449.0	774.7	2587.6	2701.1	0.00	0.00	0.00	0.00
5600.0	46.97	73.33	4517.3	795.7	2657.7	2774.2	0.00	0.00	0.00	0.00
5700.0	46.97	73.33	4585.5	816.6	2727.7	2847.3	0.00	0.00	0.00	0.00
5800.0	46.97	73.33	4653.8	837.6	2797.7	2920.4	0.00	0.00	0.00	0.00
5900.0	46.97	73.33	4722.0	858.6	2867.7	2993.5	0.00	0.00	0.00	0.00
6000.0	46.97	73.33	4790.2	879.5	2937.8	3066.6	0.00	0.00	0.00	0.00
6100.0	46.97	73.33	4858.5	900.5	3007.8	3139.7	0.00	0.00	0.00	0.00

Weatherford Planning Report

Company: Wolverine Gas & Oil Co of Utah
Field: Sevier County, Utah
Site: Pad A-2
Well: 16-1
Wellpath: 1

Date: 12/22/2004 Time: 10:34:12
Co-ordinate(NE) Reference: Well: 16-1, True North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,73.33Azi)
Plan: 16-1

Page: 3

Section 4 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
6196.4	46.97	73.33	4924.3	920.7	3075.3	3210.2	0.00	0.00	0.00	0.00

Section 5 : Start Drop -3.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
6200.0	46.86	73.33	4926.7	921.5	3077.8	3212.8	3.00	-3.00	0.00	180.00
6300.0	43.86	73.33	4997.0	941.9	3146.0	3283.9	3.00	-3.00	0.00	180.00
6400.0	40.86	73.33	5070.9	961.2	3210.5	3351.3	3.00	-3.00	0.00	180.00
6500.0	37.86	73.33	5148.2	979.4	3271.3	3414.7	3.00	-3.00	0.00	180.00
6600.0	34.86	73.33	5228.7	996.4	3328.0	3474.0	3.00	-3.00	0.00	180.00
6700.0	31.86	73.33	5312.2	1012.1	3380.7	3529.0	3.00	-3.00	0.00	180.00
6800.0	28.86	73.33	5398.5	1026.6	3429.1	3579.5	3.00	-3.00	0.00	180.00
6900.0	25.86	73.33	5487.3	1039.8	3473.1	3625.5	3.00	-3.00	0.00	180.00
6947.2	24.44	73.33	5530.0	1045.6	3492.3	3645.5	3.00	-3.00	0.00	-180.00
6951.6	24.31	73.33	5534.0	1046.1	3494.1	3647.3	3.00	-3.00	0.00	-180.00
7000.0	22.86	73.33	5578.4	1051.6	3512.7	3666.7	3.00	-3.00	0.00	180.00
7100.0	19.86	73.33	5671.5	1062.1	3547.5	3703.1	3.00	-3.00	0.00	180.00
7200.0	16.86	73.33	5766.4	1071.1	3577.7	3734.6	3.00	-3.00	0.00	180.00
7262.0	15.00	73.33	5826.0	1076.0	3594.0	3751.6	3.00	-3.00	0.00	-180.00

Section 6 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
7300.0	15.00	73.33	5862.7	1078.8	3603.4	3761.5	0.00	0.00	0.00	0.00
7400.0	15.00	73.33	5959.3	1086.2	3628.2	3787.3	0.00	0.00	0.00	0.00
7500.0	15.00	73.33	6055.9	1093.7	3653.0	3813.2	0.00	0.00	0.00	0.00
7600.0	15.00	73.33	6152.5	1101.1	3677.8	3839.1	0.00	0.00	0.00	0.00
7700.0	15.00	73.33	6249.1	1108.5	3702.6	3865.0	0.00	0.00	0.00	0.00
7800.0	15.00	73.33	6345.7	1115.9	3727.4	3890.9	0.00	0.00	0.00	0.00
7900.0	15.00	73.33	6442.3	1123.4	3752.2	3916.8	0.00	0.00	0.00	0.00
8000.0	15.00	73.33	6538.9	1130.8	3777.0	3942.6	0.00	0.00	0.00	0.00
8011.5	15.00	73.33	6550.0	1131.6	3779.8	3945.6	0.00	0.00	0.00	0.00

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec	← Longitude → Deg Min Sec
NVJ01 660' FN & FW 16-1		5826.0	1076.0	3594.0	173249.62	1879999.66	38 48 29.533 N	111 55 15.819 W
-Rectangle (330x330)								
-Plan hit target								

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
20.0	20.0	20.000	26.000	20"
600.1	600.0	16.000	17.500	16"
2646.3	2500.0	13.375	17.500	13 3/8"
6951.6	5534.0	9.625	12.250	9 5/8"
8011.5	6550.0	7.000	8.500	7"

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
6947.2	5530.0	Twin Creek		0.00	0.00
7262.0	5826.0	NVJ01		0.00	0.00

***PROJECT PLAN OF DEVELOPMENT AND
MASTER SURFACE USE PLAN***

Wolverine State #16-1

NAME OF APPLICANT: Wolverine Gas and Oil Company of Utah,
LLC
One Riverfront Plaza, 55 Campau NW
Grand Rapids, Michigan 49503-2616

PROJECT NAME: "Wolverine State #16-1"
NW/NW of Section 16
Township 23 South – Range 1 West

ATTACHMENTS: A.) Project Map/Survey
B.) Well Site Location Layout
C.) Typical Cross Sections (Cut and Fill)
D.) Wildlife & Vegetative Species of
Concern Summary
E.) Cultural Resource Survey Report

I. DESCRIPTION OF PROJECT:

Wolverine Gas and Oil Company of Utah, LLC (Wolverine) proposes to drill and explore for hydrocarbons, using a directional drilling program, from the Navajo Formation at depths of approximately 4,810' – 7,036' and approximately 8,062' – 9,100' within the Wolverine Federal Exploration Unit situated in Sevier County, Utah:

TOWNSHIP 23 SOUTH, RANGE 1 WEST

Northwest Quarter of Northwest Quarter (NW/NW) of Section 16

Well Name & No. Target Elev. Location TD Footages

LEASE # UTU-73528					
Wolverine State #16-1	Navajo 1 and 2	5,736'	NW NW Sec 16, T23S-R1W	8,100'	1,680' FNL; 2,265' FWL

The attached Project Map (Attachment A) indicates the proposed well site and its intended configuration. Additionally, the existing access route is indicated. This well is being drilled within the “Wolverine Federal Exploration Unit” and upon privately owned surface.

Mineral rights within the Wolverine Federal Exploration Unit are owned by a variety of interests and are state owned at the target bottom-hole location for this proposed well. The proposed surface plan will be reviewed and inspected by the appropriate regulatory agencies, state and federal, to ensure proper utilization of the surface reflecting an effort by Wolverine to minimize surface disturbance and waste. Appropriate Onshore Oil and Gas Orders and those of the Utah Division of Oil, Gas and Mining will be followed in the constructing, drilling, completion, operation, plugging and surface reclamation of this well.

The project is situated within an area that is referred to by the Utah Division of Oil, Gas and Mining (Statement of Basis, Kings Meadow Ranches 17-1, October 21, 2003) as “... placed in the High Plateaus section of the Colorado Plateau physiographic province in western central Utah. Some people have characterized this area as being in the Basin and Range – Colorado Plateau transition zone.” The drill site itself is located in a flat area between steep hills and is contiguous to Highway 24 from which access to this site will be established. The flat area is dominated by sagebrush – grass communities and the nearby hillsides are dominated by Pinyon Pine – Juniper communities. The access route consists of an improved driveway off from Highway 24 entering onto the well site. BLM road construction standards will be adhered to as new improvements are constructed.

Wolverine’s proposed “Wolverine State #16-1” project is most easily accessible from Sigurd, Utah. From Sigurd, one would drive down Highway 24 heading east/southeasterly. At mile marker 13, drive approximately 0.6 miles and turn easterly onto the existing access road driving approximately 200 yards to the proposed well pad location.

Surface water is located in the area primarily in the form of the Sevier River, in the Peterson Creek drainage, a tributary of Brine Creek. Local springs arising from the volcanic rocks and ephemeral drainages also exist in the area including a drainage way situated along Highway 24. The Sevier River is approximately three (3) miles west of this proposed location.

Geology and Soil Types

Again quoting from the “Division of Oil, Gas and Mining, Statement of Basis, Kings Meadow Ranches 17-1”, the well “...will likely spud into a thin alluvium covering the evaporate-rich Jurassic age Arapien shale.” “The Arapien Shale may have been somewhat intruded or elevated into the area between the Sevier Fault and the considerable parallel secondary faulting mapped in the Cedar Mountain – Black Mountain area...” It is anticipated that from surface to approximately 400 feet in depth, the lithology of the Quaternary will consist of unconsolidated sediments.

The soil type classified at the Wolverine State #16-1 wellsite is the Billings silty clay loam. This soil type is a fine-silty, mixed calcareous, mesic Typic Torrifluvents and is usually found in areas containing two (2) to five (5) percent slopes. The soil is a deep, drained, silty clay loam. It features a light gray, moderately alkaline, strongly calcareous, silty clay loam surface soil that is approximately ten (10) inches thick. The subsoils consist of a light gray, moderately alkaline, friable, silty clay loam approximately 32 inches thick. The substrate material is a light gray, moderately alkaline, friable, silty clay loam with a small amount of gypsum veining.

Assuming that the drilling and completion of this well results in its ability to commercially produce hydrocarbons, appropriate market connections will be made upon proper permitting of such activities by all agencies having jurisdiction over said activities.

II. SOIL EROSION CONTROL MEASURES:

The well pad will be sloped at about 1%, in the direction of the site’s drainage so as to provide for a well-drained work area during drilling operations. Appropriate collection and infiltration basins will be constructed in the sloped area of the drill pad.

In all fill areas, the edges shall be diked to control run off.

Appropriate drill site drainage and sedimentation control measures will be incorporated in the operational plan. These may include utilization of earthen dikes along the fill portion of the drilling pad perimeter, stabilization of slopes as needed, location of the reserve pits in the cut portion of the drilling pad and the pad constructed so as to slope toward a collection and infiltration basin. Construction of the drill site shall be in accordance with the regulations and stipulations as defined by the State of Utah, Department of Natural Resources, Division of Water Rights.

Reclamation of the site will be in accordance with Best Management Practices and requirements of the Bureau of Land Management.

III. EXISTING ACCESS ROADS AND ROAD IMPROVEMENTS

The existing access road is identified and labeled on the project map. Steep, rough topography is not identified as a problem along our access route which was constructed by initially using fill material and covering it with approximately eight (8) inches of shale/gravel. Another layer of road base material, approximately four (4) inches in depth, was placed on top of the shale/gravel.

IV. LOCATION OF EXISTING WELLS

The recently drilled “King Meadow Ranches 17-1” well is situated approximately 200 yards southwesterly of this proposed well site location and is situated in the Southeast Quarter of the Northwest Quarter (SE/NW) of Section 17, Township 23 South, Range 1 West, Sevier County, Utah. “Wolverine Federal 17-2” is located approximately one-half mile southerly of this proposed well site and is situated in the Southeast Quarter of the Southwest Quarter (SE/SW) of Section 17, Township 23 South, Range 1 West, Sevier County, Utah.

V. DRILLING METHOD

Wolverine proposes to use a directional drilling program for the Wolverine State #16-1. The mountainous terrain of the area is such that directional drilling is the most efficient method to minimize surface disturbance. By locating the well pad on a relatively flat surface, and drilling a directional well beneath this challenging topography, Wolverine can most effectively minimize surface disturbance and ensure proper utilization of resources.

VI. LOCATION AND TYPE OF WATER SUPPLY

Water for drilling the Wolverine State #16-1 will be purchased from water wells nearby or drilled on location and pumped into storage tanks at the site. Water for drilling from nearby well(s) will be hauled to location and stored in storage tanks on the drill site. Wastewater will not be discharged on the surface at this site and the drilling of the well will not require a wastewater management plan.

VII. CONSTRUCTION MATERIALS

In most circumstances, natural earth materials were used for the construction of roads and fills. These were taken from locations essentially contiguous to or nearby the locations to be improved. When necessary, road base materials were used and delivered

by the contractor for application on site and specifically as the initial fill material for the access road, which was then covered with approximately eight (8) inches of shale/gravel.

VIII. METHODS FOR HANDLING WASTE

The Reserve Pit will be dug on the well pad per the attached Well Site Location Layout (Attachment B). It will be used for the disposal of waste mud and drill cuttings and will be located on the south portion of the well site plan. The pit will be 100 feet X 240 feet and will be 10 feet deep. The pit will be lined with a synthetic liner having a minimum thickness of 12 mills and if the reserve pit is built in rock, geotextile or some other material approved by the Division of Oil, Gas and Mining shall be utilized. The Division of Oil, Gas and Mining shall be notified prior to lining the reserve pit in order to allow for Division inspection. Rules pursuant to R649-3-16 will be followed regarding the reserve pit as well as those governing Onshore Oil and Gas Operations (43 CFR 3160.)

Upon evaporation of fluids, pit closure occurs with the back fill of soil and its compaction to prevent settling. The usage of the pit is further described in the section VIII under pit closure.

All garbage will be taken off site and disposed of properly. Pursuant to R649-3-14, all rubbish and debris shall be kept in containers on the well site, and will be hauled to an approved disposal site upon completion of drilling and completion operations and as needed during such operations. There will be no chemical disposal of any type. Sewage is handled through the renting of portable toilets. These are serviced by the rental company and removed from site when no longer required.

IX. PLANS FOR RECLAMATION OF THE SURFACE

Pit closure: The pits will be fenced on three sides during all drilling operations and then the fourth side will be immediately fenced when the rig is moved off location. After evaporation of fluids, back-fill of sub-soil and compaction to prevent settling will occur within 90 days of the drilling and completing of the well. If necessary after 90 days, the fluids will be sucked out of the pit and transported off site.

The topsoil will be stripped off and stock piled in an area not to be disturbed. The topsoil will be placed back on the pit after back filling and then prepped for re-seeding.

The approximate Pit size is indicated on the Well Site Location Layout diagram attached hereto (Attachment B).

Revegetation Methods: Disturbed areas will be disked, seeded and “dragged”, as needed; seeding with a mixture approved by the local USDA Natural Resource Conservation Service or the Bureau of Land Management.

Wolverine generally requires at least twelve (12) pounds per acre of seed distribution. Wolverine suggests that autumn seeding practices be used due to the terrain in this project area. Spring rain events are common and tend to cause severe run-off. Fall seeding will allow any moisture, whether rain or snow, to assist the seed into the ground.

Other Practices: Other practices that will be utilized to reclaim disturbed areas will include riprap when and if necessary to prevent erosion and the installation of silt fencing in sensitive and/or erosive areas.

Timetable: Reclamation of the surface will commence as soon thereafter construction, drilling and well completion are concluded, as is practicable, depending on weather. In the event of a dry hole, the drill site and roadways will be restored to their original condition as nearly as practicable within 180 days after plugging date of the well.

X. SURFACE OWNERSHIP

The surface of the proposed well site is privately owned.

XI. WELLSITE LAYOUT

Please see the attached “Well Site Location Layout” (Attachment B) for the well configurations.

XII. PIPELINES AND STREAM CROSSINGS

PIPELINES: In the event of hydrocarbon production requiring transmission by pipeline, the proposed pipeline(s) will be designed, constructed, tested, operated and maintained in accordance with standard safety practices and by a combination of construction techniques intended to minimize to the greatest extent practical the impacts upon natural resources.

Pipelines will typically be installed by trenching. In these trenched areas, the contractor shall strip and stockpile topsoil to be replaced over the backfill portion upon completion of construction operations. Silt fencing will be installed at all stream crossings.

The proposed pipelines will be constructed with a combination of methods intended to minimize impacts to private, state and federally owned property, county roads

and natural resources. The pipeline will be constructed by a combination of conventional construction techniques and special measures designed to minimize impacts to natural resources. Pipelines will be adequately compacted before the topsoil is replaced for re-seeding.

In general and where required, soil erosion control measures will consist of appropriate BMPs (Best Management Practices) to reduce the potential for erosion. The BMPs that will be utilized in upland areas include use of construction barriers where appropriate, land clearing, spoil piles, staging and scheduling, seeding and mulching. Note that spoil piles will not typically be seeded since exposure of the spoil piles should be minimal in time. All other proper BMP measures will be implemented to reduce the potential for erosion. Seeding of all raw soils after burial of pipe will be performed. However, mulching will be performed only within state or county road right-of-ways.

Generally speaking, in wetlands, appropriate BMPs will be implemented to minimize the potential for soil erosion within wetland construction zones. These measures shall include, but not be limited to, clearing, barriers, staging, filters, silt fencing, spoil piles, dewatering, seeding, and mulching.

XIII. GENERAL

TIMELINE: The following is a general order of construction and sequence of earth change by which our operations will proceed:

- 1.) Access Road and Well Pad Construction
- 2.) Drilling and Well Completion Operations
- 3.) Initial Well Pad Restoration
- 4.) Clearing of Pipeline Rights-of-way (if needed)
- 5.) Delivery and Layout of Pipe
- 6.) Pipe Welding and Inspection
- 7.) Trenching of Pipe
- 8.) Placement and Burying of Pipe
- 9.) Final Restoration of Site/Access/Pipeline Route
- 10.) Re-Seeding

All hillsides, creek banks, and other places where contractor has moved earth to facilitate operations shall be restored to as near original condition as practical. Replaced material and/or backfill will be protected from erosion to the satisfaction of Wolverine, the Bureau of Land Management and the Utah Division of Oil, Gas and Mining without undue delay.

Upon completion of any backfill, contractor shall clear pipeline rights-of-way and access routes of large rocks, stumps and other debris; fill holes, ruts and depressions, and shall keep the access road in a neat and acceptable condition. All cleanup shall be maintained by the contractor until final acceptance by Wolverine and the enforcing agency.

XIV. ENVIRONMENTAL IMPACT ASSESSMENT:

It is anticipated that the drilling and operations planned, provided the success of this well, will not have any adverse affects to any wildlife or aquatic life in the area. There will be only a minor effect on the surface cover. Drilling and production operations should have minimal effect on the population patterns, land use, public utilities or public services in the near future for this rural area.

Noise levels during drilling and completion operations may be continuous but not unusually high. If production is achieved, noise levels should be minimal during the operation and maintenance of the wells.

Necessary soil erosion and sedimentation safeguards will be built into the well pad, access and future proposed pipeline routes to protect any nearby lowlands, where appropriate. Particular care will be exercised in order that all drain ditches be maintained and kept unobstructed to prevent water backup against spoil banks or backfill, causing erosion. The cumulative long-term effect on the immediate environment should be minimal.

If the well is productive, the effect on the air quality in the area is expected to be practically non-existent. Human activity in this area is somewhat limited, due to the nature of the location. Ranching operations and any activities in the area should not be adversely affected.

The site will then be contoured as closely as practical to its natural state, fine graded and stabilized. The well site and access route will be restored as soon as practical. If a well is productive, existing dikes will be maintained and erosion control procedures, as specified and required by the Bureau of Land Management, will be followed to insure protection of the local ecosystem.

Cultural

Please see, "Attachment E", Cultural Resource of A Well Pad (A-2) Near Sigurd, Sevier County, Utah.

Wildlife

Please see "Attachment D", a summary of Wildlife and Vegetative Species of Concern.

XV. SUMMARY:

In conclusion, the environmental impact of this project is considered to be minimal and every effort will be made to ensure the protection and preservation of the environment, as well as the standard of living for those affected by its operation.

This proposed project is aimed at increasing the hydrocarbon reserves within the State of Utah. In addition, in the event that production can be established in this project, it will be of financial benefit to the private holders of oil and gas rights within the "Wolverine Federal Exploration Unit", including the Bureau of Land Management in fulfillment of its stewardship responsibilities over federally owned oil and gas assets. We consider the environmental impact of this project to be slight and we will make every effort to be conscientious operators and to insure protection and preservation of the environment during the course of our drilling and producing operations.

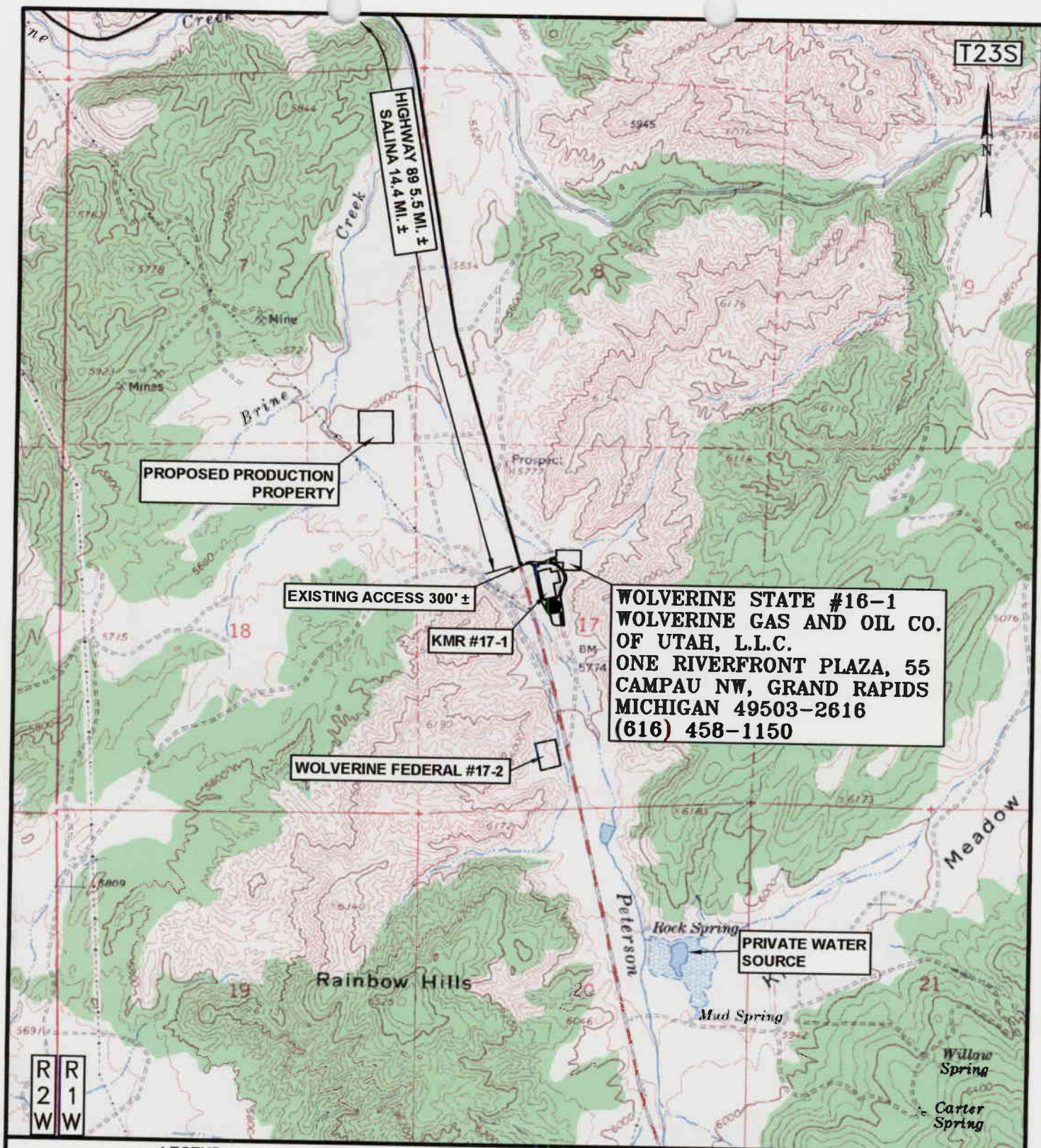
Sincerely,

Wolverine Gas and Oil Company of Utah, LLC

By: 

Authorized Permitting Agent: Shawn Burd

Western Land Services – Western Division
54 West Seymour Street
Sheridan, WY 82801
Donald L. Anderson, Chief Operating Officer
Phone: 307-673-1817
Local Contact: Shawn Burd
Phone: 435-896-1943



WOLVERINE STATE #16-1
WOLVERINE GAS AND OIL CO.
OF UTAH, L.L.C.
 ONE RIVERFRONT PLAZA, 55
 CAMPAU NW, GRAND RAPIDS
 MICHIGAN 49503-2616
 (616) 458-1150

R
2
W

R
1
W

LEGEND

- EXISTING ROAD
- - - - - EXISTING ACCESS ROAD

Wolverine State #16-1
 Section 17, T.23 S., R.1 W., S.L.B. & M.
 1680' FNL 2265' FWL

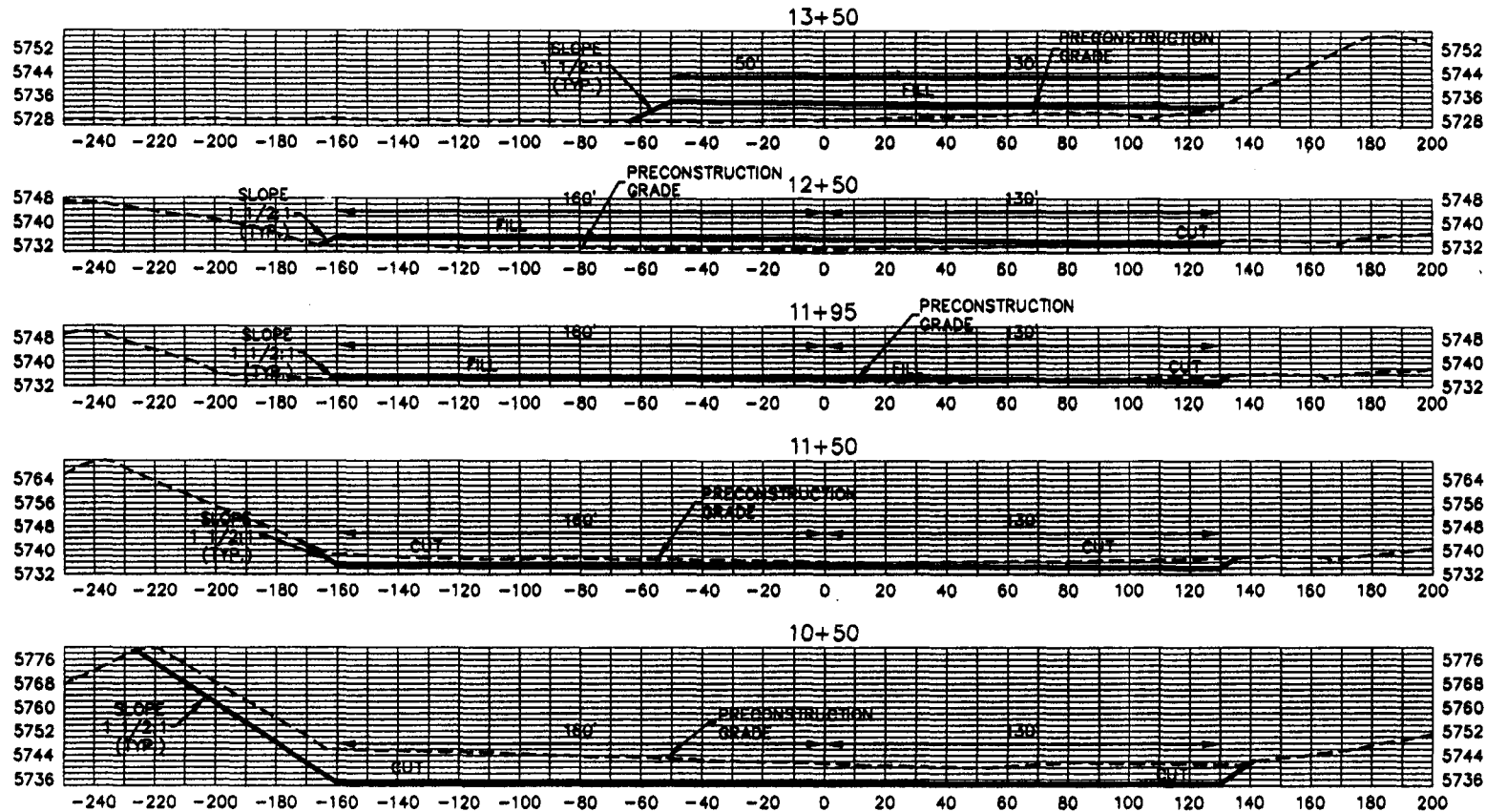


Jones & DeMille Engineering
 1535 South 100 West — Richfield, Utah 84701
 (435) 896-8266 Phone
 (435) 896-8268 Fax
 www.jonesanddemille.com

Wolverine Gas and Oil Co.
Wolverine State #16-1
Location Map

SCALE: 1" = 2000'	ENG.:	PROJ.#: 0406-160
DATE: Oct. 2004	DWG.BY: K.B.B.	DWG.NAME: Wells

WOLVERINE GAS & OIL COMPANY OF UTAH, LLC.
TYPICAL CROSS SECTIONS FOR
WOLVERINE STATE #16-1
SECTION 17, T23S, R1W, S.L.B.&M.



Jones & DeMille Engineering
 1535 South 100 West - Richfield, Utah 84701
 Phone (435) 896-8266
 Fax (435) 896-8266
 www.jonesanddemille.com

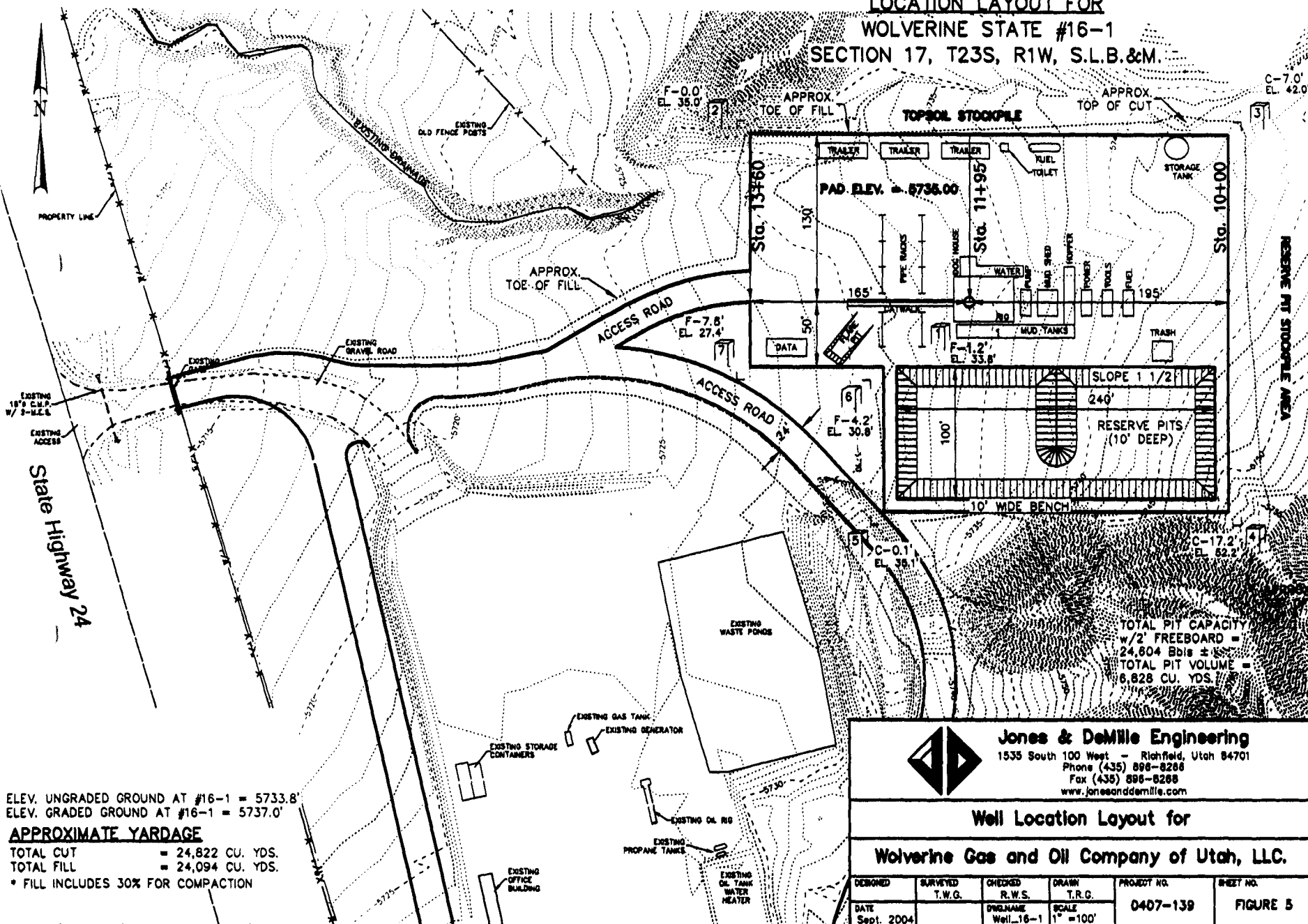
Typical Cross Sections for

Wolverine Gas & Oil Company of Utah, LLC.

DESIGNED	SURVEYED	CHECKED	DRAWN	PROJECT NO.	SHEET NO.
	T.W.G.	R.W.S.	T.R.G.		
DATE		DESIGNER	SCALE		
Sept. 2004		Design	1" = 60'	0407-139	FIGURE 5A

WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC.

LOCATION LAYOUT FOR WOLVERINE STATE #16-1 SECTION 17, T23S, R1W, S.L.B.&M.



Jones & DeMille Engineering

1535 South 100 West - Richfield, Utah 84701
 Phone (435) 896-8288
 Fax (435) 896-8288
 www.jonesanddemille.com

Well Location Layout for

Wolverine Gas and Oil Company of Utah, LLC.

DESIGNED	SURVEYED	CHECKED	DRAWN	PROJECT NO.	SHEET NO.
	T.W.G.	R.W.S.	T.R.G.	0407-139	FIGURE 5
DATE		DATE	SCALE		
Sept. 2004		Well-16-1	1" = 100'		

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160
(UT-922)

August 16, 2004

Memorandum

To: Field Office Manger, Richfield Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2004 Plan of Development Wolverine Unit Sevier County,
Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2004 within the Wolverine Unit, Sevier County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ Navajo)		
43-041-30032	Wolverine Federal	20-1 Sec 17 T23S R01W 0833 FSL 1925 FWL
	BHL	Sec 20 T23S R01W 0660 FNL 0660 FWL
43-041-30033	Wolverine Federal	19-1 Sec 17 T23S R01W 0857 FSL 1919 FWL
	BHL	Sec 19 T23S R01W 0660 FNL 0660 FEL
43-041-30034	Wolverine Federal	18-1 Sec 17 T23S R01W 0845 FSL 1922 FWL
	BHL	Sec 18 T23S R01W 0660 FSL 0660 FEL
43-041-30035	Wolverine Federal	17-4 Sec 17 T23S R01W 1736 FNL 2298 FWL
	BHL	Sec 17 T23S R01W 1980 FSL 1980 FEL
43-041-30036	Wolverine Federal	17-3 Sec 17 T23S R01W 1736 FNL 2283 FWL
	BHL	Sec 17 T23S R01W 1980 FSL 0660 FWL
43-041-30037	Wolverine State	16-1 Sec 17 T23S R01W 1736 FNL 2253 FWL
	BHL	Sec 16 T23S R01W 0660 FNL 0660 FWL
43-041-30038	Wolverine Federal	17-5 Sec 17 T23S R01W 1736 FNL 2268 FWL
	BHL	Sec 17 T23S R01W 1980 FNL 0660 FEL

006

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/30/2004

API NO. ASSIGNED: 43-041-30037

WELL NAME: WOLVERINE FED 8-1

OPERATOR: WOLVERINE GAS & OIL CO (N1655)

CONTACT: RICHARD MORITZ

PHONE NUMBER: 616-458-1150

PROPOSED LOCATION:

SENW 17 230S 010W

SURFACE: 1680 FNL 2265 FWL

SESE BOTTOM: 0450 FSL 1010 FEL Sec 8

SEVIER

COVENANT (492)

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-73528

SURFACE OWNER: 4 - Fee

PROPOSED FORMATION: NAVA

COALBED METHANE WELL? NO

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LATITUDE: 38.80554

LONGITUDE: -111.9332

RECEIVED AND/OR REVIEWED:

☒ Plat☒ Bond: Fed[1] Ind[] Sta[] Fee[]

(No. WY 3329)

☒ Potash (Y/N)☒ Oil Shale 190-5 (B) or 190-3 or 190-13☒ Water Permit

(No. 63-2529)

☒ RDCC Review (Y/N)

(Date:)

☒ Fee Surf Agreement (Y/N)

LOCATION AND SITING:

R649-2-3.

Unit WOLVERINE

R649-3-2. General

Siting: 460 From Qtr/Qtr & 920' Between Wells

R649-3-3. Exception

Drilling Unit

Board Cause No:

Eff Date:

Siting:

☒ R649-3-11. Directional Drill

COMMENTS:

STIPULATIONS:

1-Federal Approved

004

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/30/2004

API NO. ASSIGNED: 43-041-30037

WELL NAME: WOLVERINE ST 16-1

OPERATOR: WOLVERINE GAS & OIL CO (N1655)

CONTACT: RICHARD MORITZ

PHONE NUMBER: 616-458-1150

PROPOSED LOCATION:

SENW 17 230S 010W

SURFACE: 1680 FNL 2265 FWL

NWNW BOTTOM: 0660 FNL 0660 FWL *Sec 16*

SEVIER

WILDCAT (1)

LEASE TYPE: 3 - State

LEASE NUMBER: ML-46605

SURFACE OWNER: 4 - Fee

PROPOSED FORMATION: NAVA

COALBED METHANE WELL? NO

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LATITUDE: 38.80554

LONGITUDE: -111.9332

RECEIVED AND/OR REVIEWED:

- ☒ Plat
- ☒ Bond: Fed[] Ind[] Sta[] Fee[]
(No. 19107598)
- ☒ Potash (Y/N)
- ☒ Oil Shale 190-5 (B) or 190-3 or 190-13
- ☒ Water Permit
(No. 63-2529)
- ☒ RDCC Review (Y/N)
(Date:)
- ☒ Fee Surf Agreement (Y/N)
Surface Owner is Wolverine

LOCATION AND SITING:

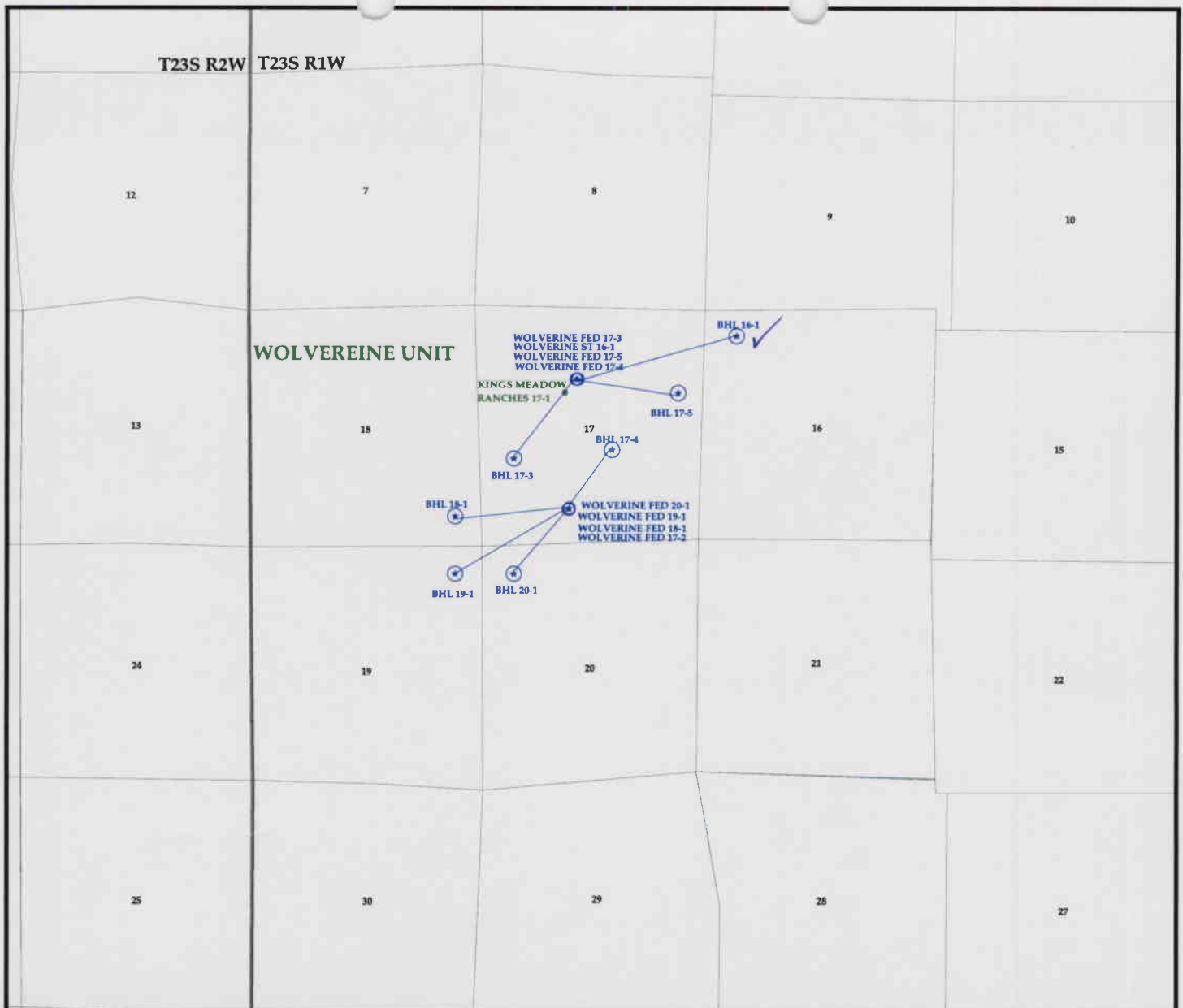
- ☐ R649-2-3.
- Unit WOLVERINE
- ☐ R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells
- ☐ R649-3-3. Exception
- ☐ Drilling Unit
Board Cause No: _____
Eff Date: _____
Siting: _____
- ☒ R649-3-11. Directional Drill

COMMENTS:

Permit (Rec'd 9-7-04)

STIPULATIONS:

- 1- Spacing Slip*
- 2- STATEMENT OF BASIS*



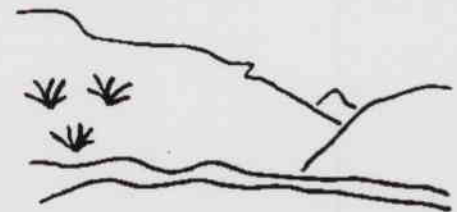
OPERATOR: WOLVERINE G&O CO (N1655)

SEC. 17 T.23S R.1W

FIELD: WILDCAT (001)

COUNTY: SEVIER

SPACING: R649-3-11 / DIRECTIONAL DRILLING



Utah Oil Gas and Mining

Wells	Units.shp	Fields.shp
○ GAS INJECTION	□ EXPLORATORY	□ ABANDONED
○ GAS STORAGE	□ GAS STORAGE	□ ACTIVE
× LOCATION ABANDONED	□ NF PP OIL	□ COMBINED
⊕ NEW LOCATION	□ NF SECONDARY	□ INACTIVE
⊕ PLUGGED & ABANDONED	□ PENDING	□ PROPOSED
⊕ PRODUCING GAS	□ PI OIL	□ STORAGE
● PRODUCING OIL	□ PP GAS	□ TERMINATED
⊕ SHUT-IN GAS	□ PP GEOTHERML	
⊕ SHUT-IN OIL	□ PP OIL	
× TEMP. ABANDONED	□ SECONDARY	
○ TEST WELL	□ TERMINATED	
△ WATER INJECTION		
⊕ WATER SUPPLY		
⊕ WATER DISPOSAL		



PREPARED BY: DIANA WHITNEY
DATE: 12-AUG-2004

ON-SITE PREDRILL EVALUATION
Division of Oil, Gas and Mining

OPERATOR: Wolverine Gas and Oil Company
WELL NAME & NUMBER: Wolverine State 16-1
API NUMBER: 43-041-30037
LEASE: State **FIELD/UNIT:** _____
LOCATION: 1/4, 1/4 SENW **Sec:** 17 **TWP:** 23S **RNG:** 1W 1736 **FNL** 2253 **FWL**
LEGAL WELL SITING: 460 F **SEC. LINE:** 460 F 1/4, 1/4 **LINE:** 920 F **ANOTHER WELL.**
GPS COORD (UTM): X= 428534 E; Y= 4295893 N **SURFACE OWNER:** Wolverine.

PARTICIPANTS

M. Jones (DOGM), Shaun Burd (Western Land Services), Ed Bonner (SITLA).

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Proposed location is ~3.5 miles south of Sigurd, in Sevier County, Utah. Staked location lies east of Highway 24 on Wolverine Gas and Oil Company owned property. Steep hills surround the sagebrush dominated flat, from where the well is proposed to be drilled. Access to this well will be along existing Wolverine oil field roads from UDOT maintained roads. No new access road will be built for this location, as it will utilize existing access. The direct area drains to the northwest, into Brine Creek then further west eventually into the Sevier River, a year-round live water source ~2.5 miles northwest of the proposed location. Dry washes run throughout the area.

SURFACE USE PLAN

CURRENT SURFACE USE: Grazing and wildlife habitat.

PROPOSED SURFACE DISTURBANCE: 180' x 360' w/ 240' x 100' x 10' (excluded) pit.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: 8 proposed, producing, and/or PA wells are within a 1 mile radius of the above proposed well.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: On location and along roadway to production facilities south of 17-1 location.

SOURCE OF CONSTRUCTION MATERIAL: Obtained locally and trucked to site.

ANCILLARY FACILITIES: None anticipated.

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS? (EXPLAIN): This well will be drilled on a pad consisting of 4 wells, all to be drilled directionally. The pad sits next to a recently drilled vertical well, Kings Meadow Ranches 17-1. Highway 24 runs past all of this activity, therefore any and all activity associated with these wells can be seen by the public, which may increase public interest and/or concern.

WASTE MANAGEMENT PLAN:

Portable chemical toilets will be emptied into the municipal waste treatment system; garbage cans on location will be emptied into centralized dumpsters, which will be emptied into an approved landfill. Drilling fluid, and completion/frac fluid will be removed from the pit upon completion of the well. Cuttings will be buried in the pit unless oil based mud is used. If oil based mud is used disposal of the cuttings should be discussed with the Division. Used oil from drilling operations and support will be hauled to a used oil recycling facility. Produced water will be disposed of at an approved facility.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: Dry washes run throughout the immediate area of the proposed well location.

FLORA/FAUNA: Sagebrush, greasewood, winterfat, 4-wing salt brush, deer rodents, fowl.

SOIL TYPE AND CHARACTERISTICS: Rocky clay.

SURFACE FORMATION & CHARACTERISTICS: Arapien Shale

EROSION/SEDIMENTATION/STABILITY: Erosive upon disturbance.

PALEONTOLOGICAL POTENTIAL: None observed.

RESERVE PIT

CHARACTERISTICS: Dugout earthen, 240'x100'x10', exterior to location.

LINER REQUIREMENTS (Site Ranking Form attached): Liner required.

SURFACE RESTORATION/RECLAMATION PLAN

As per Wolverine.

SURFACE AGREEMENT: Wolverine owns the surface.

CULTURAL RESOURCES/ARCHAEOLOGY: Mountain States Archaeology.

OTHER OBSERVATIONS/COMMENTS

Some alterations are planned to a dry wash on the north side of the location. The appropriate permits with the Division of Water Rights will be obtained prior to any construction.

ATTACHMENTS

Photos of this location were taken and placed on file.

Mark L. Jones
DOGM REPRESENTATIVE

September 7, 2004 / 3:00 pm
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	<u>0</u>
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	<u>0</u>
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	<u>0</u>
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	<u>0</u>
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	<u>10</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid	15	
containing significant levels of hazardous constituents	20	<u>10</u>
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	<u>0</u>
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	<u>5</u>
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	<u>0</u>
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	<u>10</u>

Final Score 35 (Level I Sensitivity)

Sensitivity Level I = 20 or more; total containment is required, consider criteria for excluding pit use.

Sensitivity Level II = 15-19; lining is discretionary.

Sensitivity Level III = below 15; no specific lining is required.

DIVISION OF OIL, GAS AND MINING
APPLICATION FOR PERMIT TO DRILL
STATEMENT OF BASIS

OPERATOR: Wolverine Gas and Oil Company
WELL NAME & NUMBER: Wolverine State 16-1
API NUMBER: 3-041-30037
LOCATION: 1/4, 1/4 SENW Sec: 17 TWP: 23 S RNG: 1 W 1736 FNL 2253 FWL

Geology/Ground Water:

This location is placed in the High Plateaus section of the Colorado Plateau physiographic province in western central Utah. Some people have characterized this area as being in the Basin and Range - Colorado Plateau transition zone. The location is on fee acreage a few miles east of the Sevier River, in the Peterson Creek drainage, a tributary of Brine Creek, which subsequently flows into the Sevier River. The rancher heavily allocates water rights for the local springs, which arise from the volcanic rocks just to the east, for agriculture.

The well will likely spud into a thin alluvium covering the evaporite-rich Jurassic age Arapien Shale. The proposal calls for a saturated salt mud system from below the surface casing into the Navajo Sandstone. The quality of any surface water that manages to escape upstream allocation is diminished as it flows past the location and into Brine Creek, owing to the evaporite minerals in the Arapien Shale. Any water contained in the Arapien Shale is also likely to be of poor quality. A Division of Water Rights publication notes that aquifers in close proximity to the Arapien Shale are also likely to contain ground water with high TDS levels. Inasmuch as there do not appear to be any intervening aquifers documented in this area, which lie between the Arapien Shale and the underlying Navajo Sandstone, it is unlikely that any high quality ground water will be encountered.

At this location it is unlikely that any high quality ground water resource will be encountered in the Navajo, at that depth, in any strata drilled below the Navajo or at all. The proposed casing, cementing and drilling fluid program should be sufficient to control and isolate the poor quality ground waters expected to be encountered in a well at this location. Two surface water rights, a point to point right and an underground water right are found within a mile to the east. The underground water right is for a 156' deep well more than half a mile east.

Reviewer: Christopher J. Kierst **Date:** October 19, 2004

Surface:

Proposed location is ~3.5 miles south of Sigurd, in Sevier County, Utah. Staked location lies east of Highway 24 on Wolverine Gas and Oil Company owned property. Steep hills surround the sagebrush dominated flat from which the well is proposed to be drilled. Access to this well will be along existing Wolverine oil field roads from UDOT maintained roads. No new access road will be built for this location, as it will utilize existing access. The direct area drains to the northwest, into Brine Creek then further west eventually into the Sevier River, a year-round live water source ~2.5 miles northwest of the proposed location. Dry washes run throughout the area. Some alterations are planned to a dry wash on the north side of the location. The appropriate permits with the Division of Water Rights will be obtained prior to any construction. Shaun Burd, Western Land Services, represented Wolverine Gas and Oil, while Ed Bonner was in attendance, representing the SITLA royalty interest. Sevier County was invited but chose not to attend this on-site evaluation.

Reviewer: Mark L. Jones **Date:** October 14, 2004

Conditions of Approval/Application for Permit to Drill:

1. A synthetic liner with a minimum thickness of 12 mills shall be properly installed and maintained in the reserve pit.
2. Diversion of drainages around the pad.
3. Berm the location.







State Online Services

Agency List

Business.utah.gov

Search Utah.gov

GO

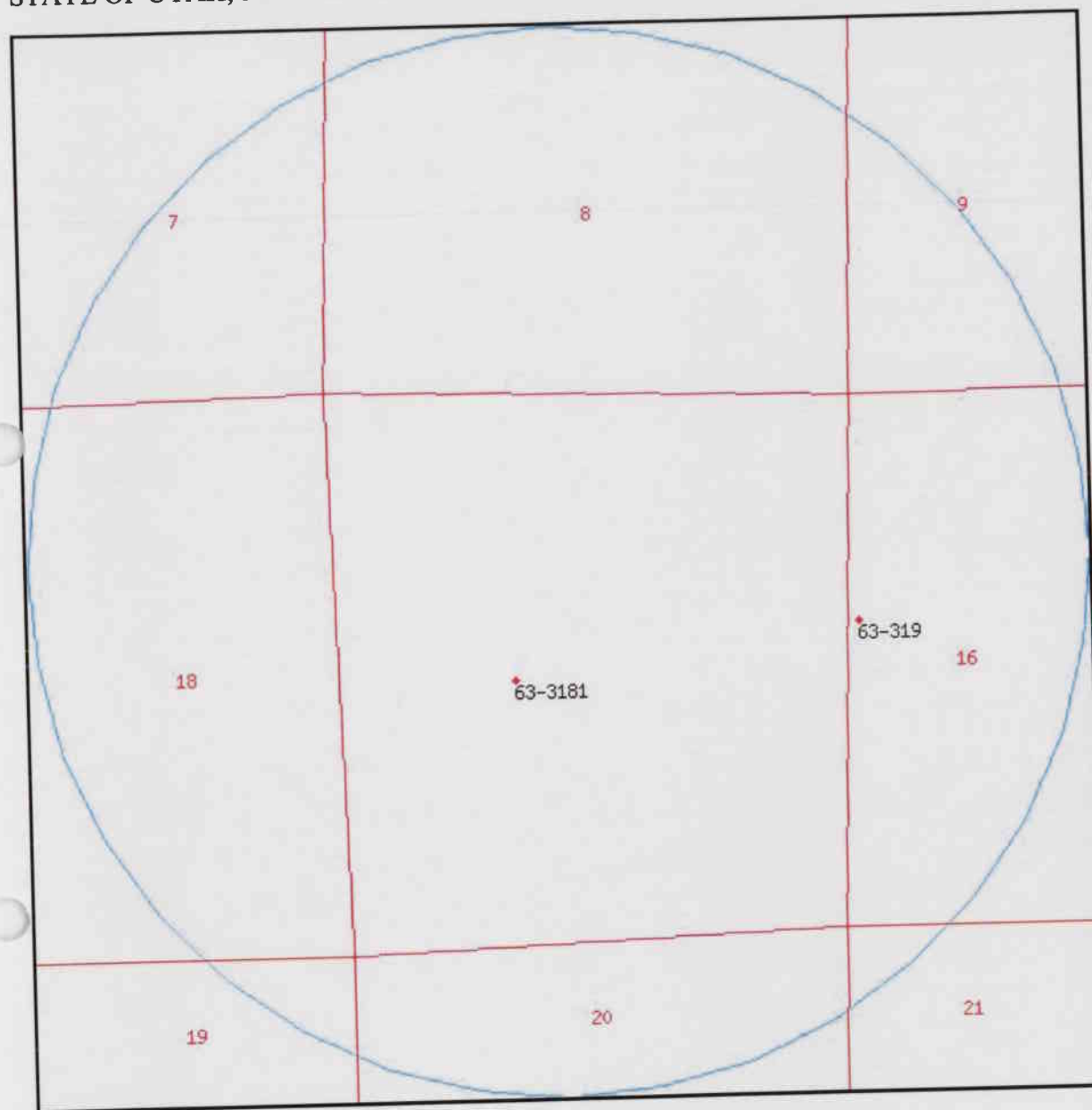
UTAH DIVISION OF WATER RIGHTS

WRPLAT Program Output Listing

Version: 2004.03.26.00 Rundate: 10/19/2004 05:29 PM

Radius search of 5280 feet from a point S1736 E2253 from the NW corner, section 17, Township 23S, Range 1W, SL
p&m Criteria:wrtypes=W,C,E podtypes=S,U,D,Sp,P status=U,A,P usetypes=all

STATE OF UTAH, DIVISION OF WATER RIGHTS



0 700 1400 2100 2800 ft

Water Rights

<http://utstnrwrt6.waterrights.utah.gov/cgi-bin/mapserv.exe>

10/19/2004

WR Number	Diversion Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner Name
<u>63-3180</u>	Surface S2900 E1800 NW 17 23S 1W SL		P	18700000	I	3.160	0.000	G. W. NEBEKER SIGURD UT 84657
<u>63-3181</u>	Surface S2900 E1800 NW 17 23S 1W SL		P	18700000	DS	0.010	0.000	G. W. NEBEKER SIGURD UT 84657
<u>63-319</u>)	Underground N330 E100 W4 16 23S 1W SL		P	19560121	S	0.015	0.000	A. BRYANT AND J. LLEWELLYN YOUNG RICHFIELD UT 84701

[Natural Resources](#) | [Contact](#) | [Disclaimer](#) | [Privacy Policy](#) | [Accessibility Policy](#)



State of Utah

Department of
Natural Resources

ROBERT L. MORGAN
Executive Director

Division of
Oil, Gas & Mining

MARY ANN WRIGHT
Acting Division Director

OLENE S. WALKER
Governor

GAYLE F. McKEACHNIE
Lieutenant Governor

December 30, 2004

Wolverine Gas and Oil Company of Utah, LLC
One Riverfront Plaza
Grand Rapids, MI 49503

Re: Wolverine State #16-1 Well, 1680' FNL, 2265' FWL, SE NW, Sec. 17,
T. 23 South, R. 1 West, Bottom Location 660' FNL, 660' FWL, NW NW,
Sec. 16, T. 23 South, R. 1 West, Sevier County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-041-30037.

Sincerely,

John R. Baza
Associate Director

pab
Enclosures

cc: Sevier County Assessor
SITLA
Bureau of Land Management, Moab District Office

Operator: Wolverine Gas and Oil Company of Utah, LLC
Well Name & Number Wolverine State #16-1
API Number: 43-041-30037
Lease: ML-46605

Location: SE NW **Sec.** 17 **T.** 23 South **R.** 1 West
Bottom Location: NW NW **Sec.** 16 **T.** 23 South **R.** 1 West

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program
- prior to commencing operations to plug and abandon the well

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

3. Reporting Requirements

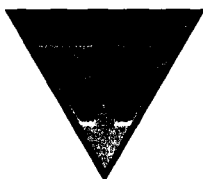
All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

5. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

6. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

7. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.



WOLVERINE GAS AND OIL COMPANY
of Utah, LLC

Energy Exploration in Partnership with the Environment

March 29, 2005

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 W. N. Temple, suite 1210
Salt Lake City, UT 84114-5801


RE: Sundry Notice
Wolverine Federal 8-1
API No. 43-041-30037

Dear Ms. Whitney:

Please accept the Sundry Notice for the Wolverine Federal 8-1, which will now terminate on BLM property. This well was originally permitted and approved as the Wolverine State 16-1. However, after updating of our interpretation with the wells recently drilled, we have decided that the bottom hole location needed to be changed to the SE/SE of Section 8, T23S-R-1W. This sundry covers: 1) revised bottom hole location, 2) changing the name of the well to reflect the new bottom hole location, and 3) changing the proposed casing program to be consistent with our current procedure. We have enclosed a revised drilling prognosis and directional plan.

If you have any questions, you may reach me at 616.458-1150.

Sincerely,


Edward A. Higuera, P.E.
Manager – Development

Enclosure

c: Steve Hash, Shawn Burd

RECEIVED
MAR 30 2005

DIV. OF OIL, GAS & MINING

CONFIDENTIAL

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-73528	
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
		7. UNIT or CA AGREEMENT NAME: Wolverine Federal Unit	
		8. WELL NAME and NUMBER: Wolverine Federal 8-1	
1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		9. API NUMBER: 4304130037	
2. NAME OF OPERATOR: Wolverine Gas & Oil Company of Utah, LLC		10. FIELD AND POOL, OR WILDCAT: Covenant	
3. ADDRESS OF OPERATOR: 55 Campau NW CITY Grand Rapids STATE MI ZIP 49505		PHONE NUMBER: (616) 458-1150	
4. LOCATION OF WELL			
FOOTAGES AT SURFACE: SHL: 1680 FNL & 2265 FWL Sec 17 T23S-R01W		COUNTY: Servier	
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SE NW 17 23S 01W		STATE: UTAH	

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____ <input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> ACIDIZE <input checked="" type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input checked="" type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION (START/RESUME) <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	<input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUT-OFF <input type="checkbox"/> OTHER: _____

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Permission is requested for the following:

1. Amend bottom hole location: FROM: 660' FNL & 660 FWL Sec 16 T23S-R01W. TO: 450' FSL & 1010' FEL Sec 8 T23N-R01W.

2. Amend Well Name (for new BHL): FROM: Wolverine State 16-1 TO: Wolverine Federal #8-1

3. Amend Casing Program:

FROM: 16", 65# 0-600', 9-5/8" 47# from 0-6750', 5-1/2" 17# from 0-8010' (est. TD)
TO: 13-3/8" 68# from 0-2000', 9-5/8" 47# from 0-6545', 7" 26# 0-7450' (est. TD)

**Approved by the
Utah Division of
Oil, Gas and Mining**

Date: 04-11-05
By: [Signature]

RECEIVED

APR 08 2005

DIV. OF OIL, GAS & MINING

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TO: 4-18-05
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NAME (PLEASE PRINT) **Edward A. Higuera**

TITLE **Manager-Development**

SIGNATURE

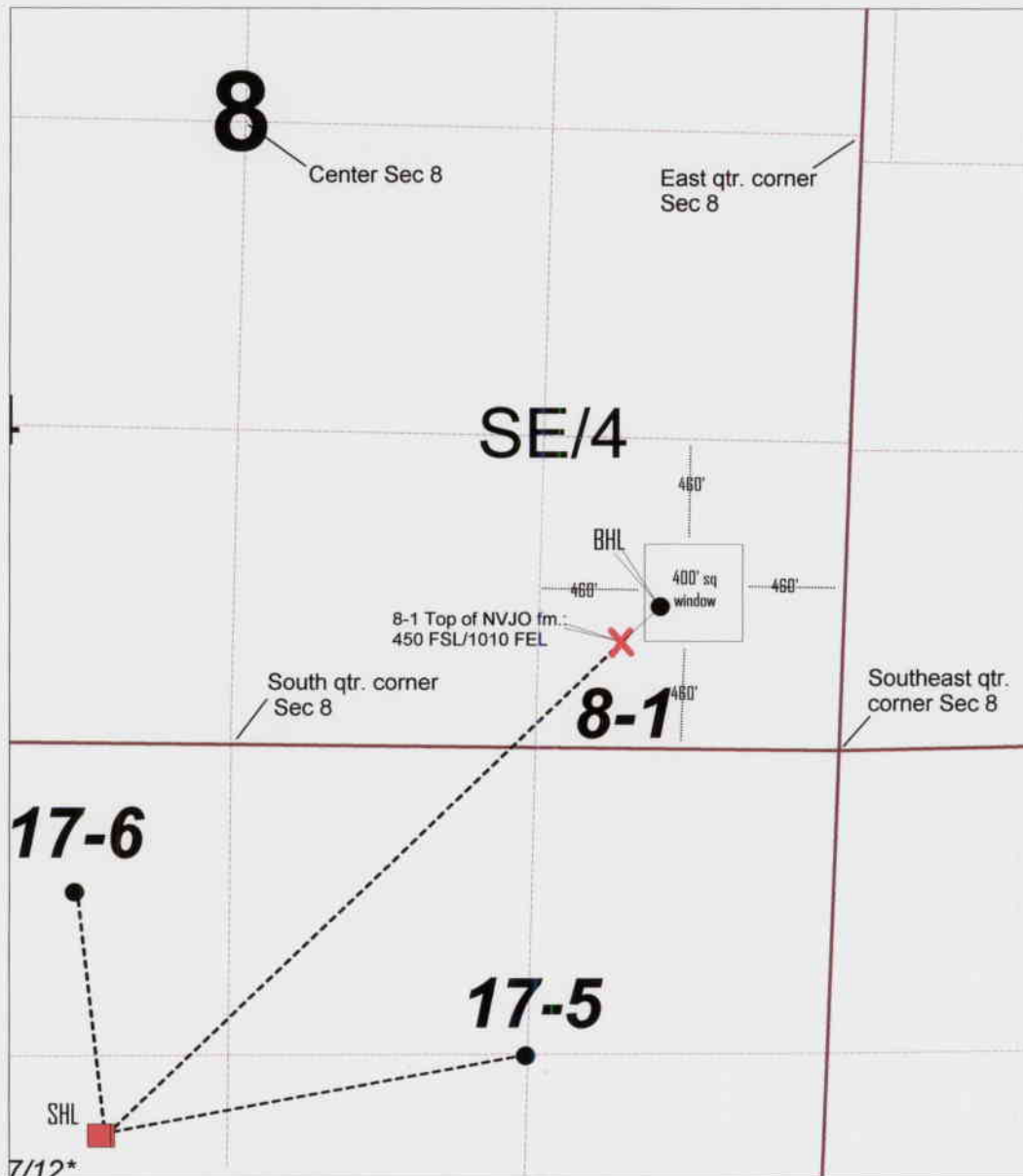
[Signature]

DATE

4-07-05

(This space for State use only)

**Federal Approval of this
Action Is Necessary**



X Proposed NVJO targets

----- Directional kick

1 inch = 800 feet



Wolverine Gas & Oil Company of Utah, LLC
(Operator)
Energy Exploration in Partnership with the Environment
ONE RIVERFRONT PLAZA
55 CAMPAN, N.W.
GRAND RAPIDS, MI 49503-2616
(616) 468-1150

Proposed Location Federal 8-1
Section 8, T23S-R1W
Sevier County, UT

Date: 7 April, 2005

gmp: mtemp

WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC

DRILLING PROGNOSIS

Wolverine Federal #8-1
SE SE SEC 8-T23S-R1W
SEVIER CO., UTAH

BRIEF DRILLING PLAN

Due to surface topography constraints, directionally drill a 7450' MD (6600' TVD) test of the Navajo 1 formation on a day work contract basis from Wolverine's present work area known as Drill Pad A-2 (c) located in SE NW of Sec 17 T23S – R01W, Sevier Co, UT. Please refer to the directional drilling plan attached for detailed hole angle, trajectory and target information. Deviation is the primary drilling concern in this area. No abnormal pressure or hydrogen sulfide gas is expected, however, an H2S detector will be utilized. The projected surface and bottomhole locations are to be as follows:

Surface Location: 1680' fnl & 2265' fwl of Sec 17 T23N – R01W
BHL @ top of NVJO1 (5978' TVD) 450' fsl & 1010' fel of Sec 8 T23N – R01W

20" conductor casing will be cemented to surface at approximately 120 ft BGL. 13-3/8" surface csg will be set & cemented to surface in a 17-1/2" hole deviated to approximately 36 deg at +/- 2000' MD (+/- 1970' TVD). A 12-1/4" hole will then be drilled to +/- 6545' MD (5720' TVD) maintaining approximately a 36 deg tangent section. 9-5/8" protective casing will be set from surface to TD & cemented over the lower 2000'. An 8-1/2" hole will then be drilled to +/- 7450' (6600' TVD). 7" production casing will then be run from TD back to surface & cemented to approximately 500' into the 9-5/8" protective casing.

EMERGENCY NUMBERS

Sevier Valley Medical Center	(435)-896-8271
Medical Helicopter	(800)-453-0120
Sheriff Department	(435)-896-2600
Fire Department-Richfield, UT	(435)-896-5479
Bureau of Land Management (Richfield):	(435)-896-1500
Bureau of Land Management (Salt Lake City)	(801) 539-4045
Utah Division of Oil, Gas and Mining (Salt Lake City):	(801)-538-5340

United States Bureau of Land Management

Contact Al McKee (801) 539-4045 24 hrs prior to spudding

Utah Division of Oil, Gas and Mining

Contact Carol Daniels (801) 538-5284, 24 hrs prior to spudding

GENERAL INFORMATION

OBJECTIVE: Navajo 1 @ 5978' (TVD) **ELEVATION:** 5736' GL (actual) 5753' KB

PROJECTED TOTAL DEPTH: 7450' MD; 6600' TVD

SURFACE LOCATION: 1680' FNL & 2265' FWL
Section 17-23S-1W

COUNTY: Sevier **STATE:** Utah

DIRECTIONS TO LOCATION: From the town of Sigurd, Utah go south
approximately 3.5 miles on Hwy #24 to location on
the left side of the road.

PROPOSED CASING PROGRAM:

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Measured Depth Set
30"	20"	.25 wall	X42	PE welded	120'
17-1/2"	13-3/8"	68#	J-55	BTC	0'-2000'
12-1/4"	9-5/8"	* 47#	N-80	LTC	0'-6545'
8-1/2"	7"	** 26#	N-80	LTC	0' -7450'

* due to availability 47# HCP-110 may be substituted for N80

** due to availability 23# HCP-110 may be substituted for N80

Hole Size	Casing Size	Drift ID, in.	OD of Couplings	Annular Volume in OH, cf/ft	Annular Volume in Csg, cf/ft	Capacity of casing, cf/ft
30"	20"	Conductor	Na			
17-1/2"	13-3/8"	12.259	14.375	.6946	1.0982	.8406
12 1/4"	9-5/8"	8.525	10.625	0.3127	0.4659	0.4340
8-1/2"	7"	6.250	7.656	.1268	.1438	.2148

GEOLOGIC FORMATIONS:

Formation	Interval (TVD)	Interval (MD)	Lithology	Prod	Abnormal Psi
Arapien	Surf – 5680'	Surf – 6505'	sh, siltstone,salt,evaporites		
TwinCreek1	5680' - 5980'	6505'–6810'	Carbonates	X	
Navajo 1	5980' - 6600'	6810'–7450'	Sandstone w/ minor shale	X	
Total Depth	6600'	7450'			

CONSTRUCTION OF SURFACE LOCATION

360'x 180' Pad

150'x 100' x 10' Reserve Pit with a 12 mil synthetic liner

96" diameter tin horn cellar, 10' deep.

Flare pit a minimum of 100' from wellhead.

SURFACE HOLE: 120' to 2000'

Directionally drill a 17-1/2" hole with a PDC bit, mud motor & MWD equipment to approximately 2000' using salt mud system from prior well (make hole to fit 13-3/8" casing). Loss circulation could be a problem in this interval and, if such occurs, begin pumping LCM sweeps. If loss circulation cannot be healed with ± 25 ppb LCM, consider dry drilling (no returns). Maintain hole angle and direction in keeping with the attached directional plan.

PRESSURE CONTROL & SAFETY EQUIPMENT FOR SURFACE HOLE

Bottom to Top (see attached 2M Diverter diagram)

20" 2M x 20" SOW flange

20" 2M x 20" 2M mud cross w/ (2) 7-1/16" 2M side outlets

one outlet 7-1/16" HCR valve w/ 6" blooie line to mud separator & flare pit

one outlet (blank)

20" 2M Annular Preventer

20" 2M flanged btm drilling nipple w/ fillup line

Upper kelly cock valves with handles available

Safety valves and subs to fit all drill string connections in use

Inside BOP or float sub available

Testing Procedure:

Annular Preventer & HCR Valve

The annular preventer will be pressure tested to 500 psi for a period of ten minutes or until provisions of the test are met, whichever is longer. At a minimum, the pressure test will be performed:

- 1) When the annular is initially installed

- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The annular preventer will be functionally operated once per week. All BOP drills will be recorded in the IADC driller's log.

Accumulator:

The accumulator will have sufficient capacity to open the hydraulically controlled gate valve (if so equipped), close the annular preventer, and retain a minimum of 200 psig above pre-charge on the closing manifold without the use of the closing unit pumps. The reservoir capacity will be double the accumulator capacity, and the fluid level will be maintained at the manufacturer's recommendations. The accumulator shall have two (2) independent power sources to close the preventers. Nitrogen bottles may be one of the independent power sources and, if so, shall maintain a charge equal to the manufacturer's specifications.

MUD PROGRAM FOR SURFACE HOLE

DEPTH	MUD WEIGHT	TYPE	VISC	FLUID LOSS
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120 -2000'	9.6 – 10.2	Salt mud	40-55	N/C
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Note: Sweep hole every 100 – 200 feet or as needed for hole cleaning. Maintain maximum flowrates for hole cleaning. Use salt gel and FlowZan polymer to maintain properties. Reduce fluid loss with Anco-Phalt and/or Gilsonite for lubricity.

CASING PROGRAM FOR SURFACE HOLE

DEPTH	SIZE	LENGTH	WT	GRADE	THREAD	REMARKS
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120 - 2000'	13-3/8"	2000'	68#	J-55	BT&C	
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Casing Running Sequence:

guide shoe, 1 jt of 13-3/8" 68# J55 BT&C, Float collar, balance of 13-3/8" 68# J55 BT&C, centralizers as reqd. RU cement co., hold safety meeting, test lines, cement 13-3/8" casing per cement company recommendation and the cementing guide below. Displace with fresh water or mud.

CEMENTING PROGRAM FOR SURFACE HOLE

Lead:

1500 sx lite weight

Mixed at: 12.8 ppg
Yield: 1.97 ft³/sx

Tail: 350 sx Premium G

Mixed at: 15.8 ppg
Yield: 1.15 ft³/sx

MUST CIRCULATE CEMENT TO SURFACE If the cement does **not** circulate to surface contact the BLM and UDOGM office for further instructions and remedial actions. Be prepared to top out with premium cement.

WOC A TOTAL OF 24 HOURS:

Wait 4 hours with the hydrostatic pressure of the displacement fluid in place, then cut off conductor and weld on a 13-5/8" 5M x 13-3/8" SOW casing head w/ MBS spool configured to hang both 9-5/8" and 7" csg strings without nipping down BOPE. NU a 13-5/8" 5M double ram BOP w/ 5M annular and 5M choke manifold rigged to mud/gas separator, mud tanks and flare pit.

PROTECTIVE CASING HOLE: 2000' to 6545'

Trip in the hole with a 12-1/4" bit, mud motor & MWD. Drill float, shoe and 20' of new hole. Perform a formation integrity test to 10.5 ppg mud weight equivalent. Directionally drill a 12-1/4" hole with a PDC and/or a TCI rock bit, mud motor & MWD equipment to approximately 6545' MD using same salt mud system as above. Loss circulation, moving salt, gypsum and anhydrite stringers may be a problem in this interval. Maintain hole angle and azimuth in keeping with the attached directional plan. Protective casing should be set into the top of the Twin Creek interval.

**PRESSURE CONTROL AND SAFETY EQUIPMENT FOR
PROTECTIVE CASING STRING**

Bottom to Top (see attached 5M BOP diagram)

13-5/8" 5M x 13-3/8" SOW casing head w/ (2) 2-1/16" SSO's (for 9-5/8")

13-5/8" 5M x 13-5/8" 5M multi-bowl casing spool (for 7")

13-5/8" 5M x 13-5/8" spacer spool

13-5/8" 5M x 13-5/8" 5M mud cross with (2) side outlets:

one outlet 2-1/16" kill line

one outlet 2-1/16" choke line

13-5/8" 5M double ram BOP w/ 5" pipe rams top & CSO rams btm

13-5/8" 5M Annular Preventer

13-5/8" 5M rotating head

Connect BOP to choke manifold with pressure gauge

Upper kelly cock valves with handles available

Safety valves and subs to fit all drill string connections in use

Inside BOP or float sub available

Testing Procedure:

Annular Preventer

The annular preventer will be pressure tested to 1500 psi for a period of ten minutes or until provisions of the test are met, whichever is longer. At a minimum, the pressure test will be performed:

- 1) When the annular is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The annular preventer will be functionally operated once per week.

Blowout Preventer

The BOP, choke manifold and related equipment will be pressure tested to 4500 psi, or 70% of the internal yield of the casing. Pressure will be maintained for a period of at least ten minutes or until the requirements of the test are met, whichever is longer. At a minimum the pressure test will be performed:

- 1) When the BOP is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills will be recorded in the IADC driller's log.

Accumulator:

The accumulator will have sufficient capacity to open the hydraulically controlled gate valve (if so equipped), close all rams plus the annular preventer, and retain a minimum of 200 psig above pre-charge on the closing manifold without the use of the closing unit pumps. The reservoir capacity will be double the accumulator capacity, and the fluid level will be maintained at the manufacturer's recommendations. The accumulator shall have two (2) independent power sources to close the preventers. Nitrogen bottles may be one of the independent power sources and, if so, shall maintain a charge equal to the manufacturer's specifications.

The accumulator pre-charge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six months thereafter. The accumulator pressure will be corrected if the measured pre-charge pressure is found to be above or below the maximum or minimum limits specified in Onshore Oil & Gas Order Number 2 (only nitrogen gas may be used to pre-charge).

Choke Manifold Equipment, Valves and Remote Controls

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration

A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will be maintained in the open position and will be closed only when the power source for the accumulator is inoperative.

Remote controls shall be readily accessible to the driller. Remote controls will be capable of both opening and closing all preventers. Master controls will be at the accumulator and

will be capable of opening and closing all preventers and the choke line valve (if so equipped).

The choke manifold and BOP extension rods with hand wheels will be located outside the rig sub structure. The hydraulic BOP closing unit will be located at least twenty-five feet from the well head but readily accessible to the driller.

A flare line will be installed after the choke manifold, extending 100 feet from the center of the drill hole to a separate flare pit.

MUD PROGRAM FOR PROTECTIVE CASING HOLE

<u>DEPTH</u>	<u>MUD WEIGHT</u>	<u>TYPE</u>	<u>VISC</u>	<u>FLUID LOSS</u>
2000' – 6545'	9.8 – 10.2	Salt Mud	36 - 50	20-30cc or less

Maintain a salt mud system as salt and gypsum sections are drilled. If loss circulation becomes a problem use LCM sweeps to control seepage & clean hole.

CASING PROGRAM FOR PROTECTIVE CASING HOLE

<u>DEPTH</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>WT</u>	<u>GRADE</u>	<u>THREAD</u>	<u>REMARKS</u>
0' – TD'	9-5/8"	6545'	* 47#	N-80	LT&C	

Rig up casing tools and run 9-5/8" protective casing as follows:

Float shoe, 2 joint of 9-5/8" * 47.0# N-80 LT&C casing, float collar, 6 centralizers, middle shoe joint and one every other joint for 12 jts, run balance of 9-5/8" 47# N-80

* due to availability 47# HCP-110 may be substituted

CEMENT PROGRAM FOR PROTECTIVE CASING

450 sx 50:50 POZ

Weight: 13.0 ppg
Yield: 1.71 ft³/sx

TOC at ~ 4500'; Calculate cement volume based on gauge hole plus 30% excess.
Displace with mud. Land 9-5/8" csg with casing mandrel. Lay down landing joint.
Clean pits and prepare for next hole section.

PRODUCTION HOLE: 6,545 to 7450'

Trip in the hole with an 8-1/2" insert bit, mud motor & MWD. Drill float, shoe and 20' of new hole. Perform an integrity test to 10 ppg mud weight equivalent.

PRESSURE CONTROL AND SAFETY EQUIPMENT FOR PRODUCTION CASING STRING

Same as Protective String above due to utilization of Multi-Bowl Casing Head Assembly – Land 9-5/8" through BOPE with casing mandrel, release, test & proceed to drilling production hole section – Nipple down & nipple up NOT required – all BOPE remains intact – normal periodic pressure testing remains on schedule

MUD PROGRAM FOR PRODUCTION HOLE

<u>DEPTH</u>	<u>MUD WEIGHT</u>	<u>TYPE</u>	<u>VISC</u>	<u>pH</u>	<u>FLUID LOSS</u>
6545' - 7450'	8.3 – 9.0	LC Polymer	34-50	9.0-10.0	10cc or Less

EVALUATION PROGRAM FOR PRODUCTION HOLE

At TD, circulate and condition hole clean for logs. Short trip to the intermediate casing monitoring well closely. TOH for logs. Run Induction tool as run #1 to determine hole conditions for logging. Adjust tool configurations depending on hole condition.

Mudlogger: From 2000' to total depth.

Electric Logs:

<u>Tool</u>	<u>PCP to TD</u>
SDL/DSN/GR (DSN PCP to surface casing)	Yes
HRI/GR/SP (DLL/MSFL/SP/GR available if brine system)	Yes
EMI	Yes
NMR	Yes

DST: none planned

Cores: none planned

CASING PROGRAM FOR PRODUCTION HOLE

DEPTH	SIZE	LENGTH	WT	GRADE	THREAD	REMARKS
0' - TD'	7"	7450'	* 26#	N-80	LT&C	

* due to availability 23# HCP-110 may be substituted for N-80

Rig up casing tools and run 7" production casing as follows:

Float shoe, 1 joint of 7" 26# N-80 LT&C casing, Float collar, Run balance of 7" 26# N80.

CEMENT PROGRAM FOR PRODUCTION CASING

400 sx (50:50) POZ Premium
2 % Bentonite
Friction reducer, salt & flocele

Weight: 14.35 ppg
Yield: 1.27 ft³/sx

TOC at \pm 5500 ft in 9-5/8" csg

Calculate cement volume based on log caliper +/- 25%. Displace cement w/water.

Hang 85-90% casing weight in slips, ND, cut off, install B-section and night cap. Clean pits and release rig.

SCHEDULE

Location preparation is presently scheduled to begin on or about April 15, 2005

Drilling operations are anticipated to begin on or about April 15, 2005

end

PRESSURE CONTROL SYSTEM SCHEMATIC

Prepared by:
EXACT Engineering, Inc
Tulsa, OK (918) 599-9400

2M Diverter Stack — to be utilized while drilling holes for surface and protective casing thru Arapien formation section

Operator:

Wolverine Gas & Oil Co. of Utah, LLC

Well name and number

Wolverine Federal # 8-1

Max. anticipated surface pressure 2000 psi

Annular B.O.P. 20" , 2M W.P.

B.O.P. none Rams none" , na W.P.
(Pipe/Blind)

B.O.P. none Rams _____" , _____ W.P.
(Pipe/Blind)

Check Valve none" , _____ W.P.

Valve none" , _____ W.P.

Valve blind flange W.P.

Valve 7-1/16" 2M "HCR"

Valve none

Kill Line Manifold

Manifold Line

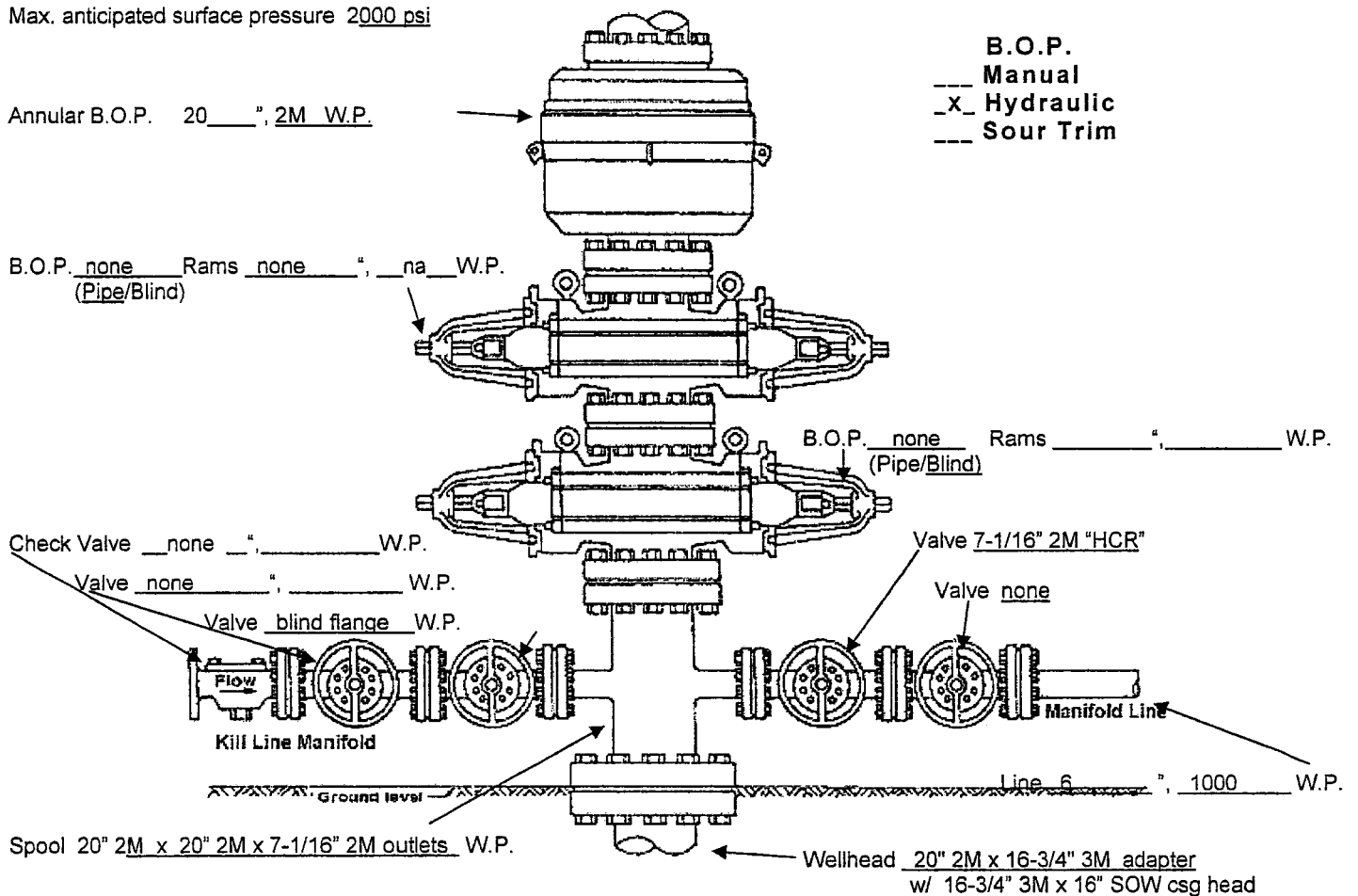
Ground level

Line 6" , 1000 W.P.

Spool 20" 2M x 20" 2M x 7-1/16" 2M outlets W.P.

Wellhead 20" 2M x 16-3/4" 3M adapter
w/ 16-3/4" 3M x 16" SOW csg head

B.O.P.
Manual
X Hydraulic
Sour Trim



PRESSURE CONTROL SYSTEM SCHEMATIC

Prepared by:
EXACT Engineering, Inc
Tulsa, OK (918) 599-9400

Operator:

Wolverine Gas & Oil Co. of Utah, LLC

Well name and number

Wolverine Federal # 8-1

5M BOP Stack — to be utilized while drilling holes for production casing thru Twin Creek & Navajo intervals

Max. anticipated surface pressure 3000 psi

Annular B.O.P. 11" – 5M WP

B.O.P.

Manual

x Hydraulic

Sour Trim

B.O.P. 4-1/2" pipe Rams 11" – 5M W.P.
(Pipe/Blind)

B.O.P. blind Rams 11" – 5M W.P.
(Pipe/Blind)

Check Valve 2-1/16" 5M WP

Valve 2-1/16" 5M WP

Valve 2-1/16" 5M WP

Valve 3-1/16" 5M WP

Valve 3-1/16" 5M WP

Kill Line Manifold

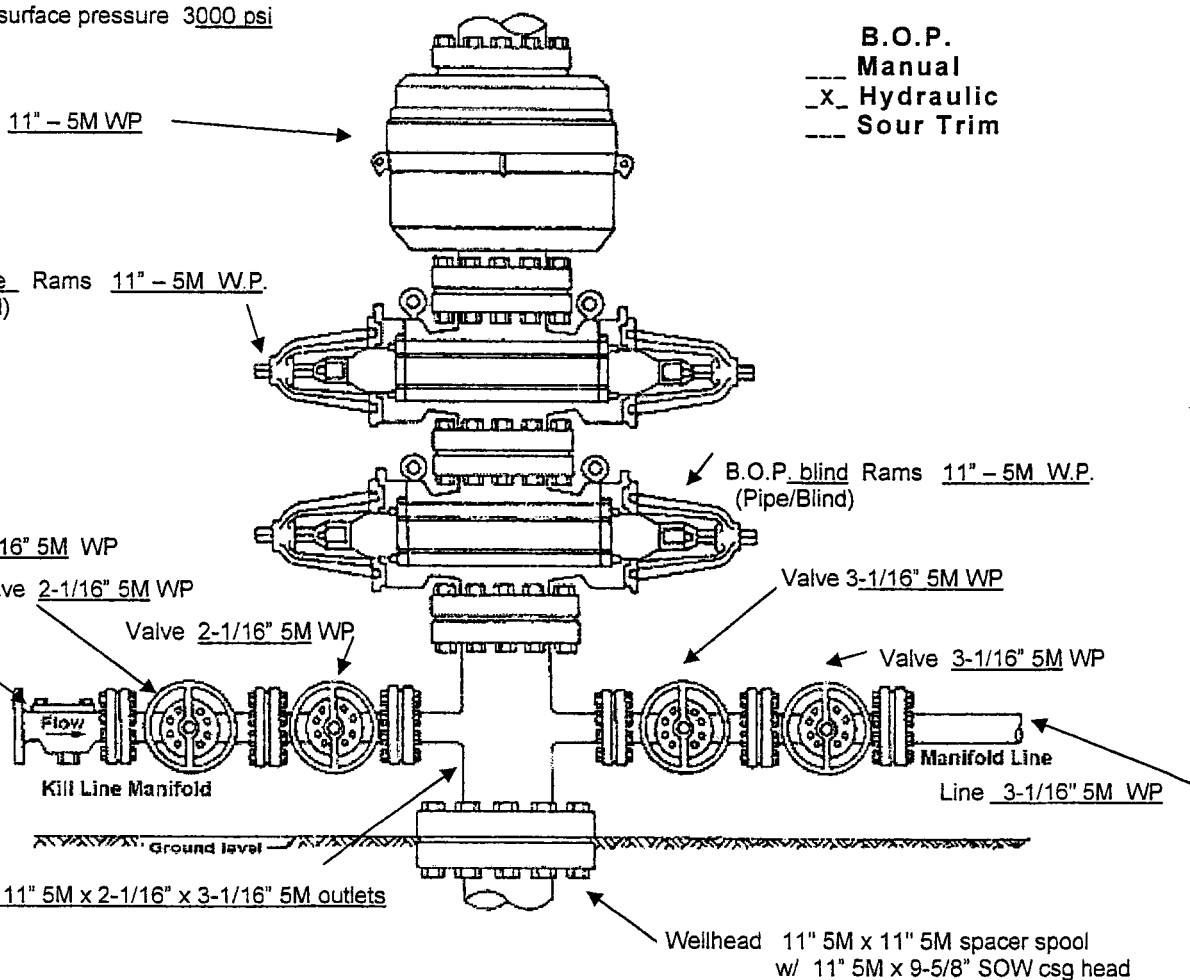
Manifold Line

Line 3-1/16" 5M WP

Ground level

Spool 11" 5M x 11" 5M x 2-1/16" x 3-1/16" 5M outlets

Wellhead 11" 5M x 11" 5M spacer spool
w/ 11" 5M x 9-5/8" SOW csg head





Wolverine Gas & Oil Co of Utah, LLC

SITE DETAILS

Pad A-2
T23S R01W Sevier County, Utah
NW/4 SE/4 Sec 17

Site Centre Latitude: 38°48'19.460N
Longitude: 111°56'02.879W

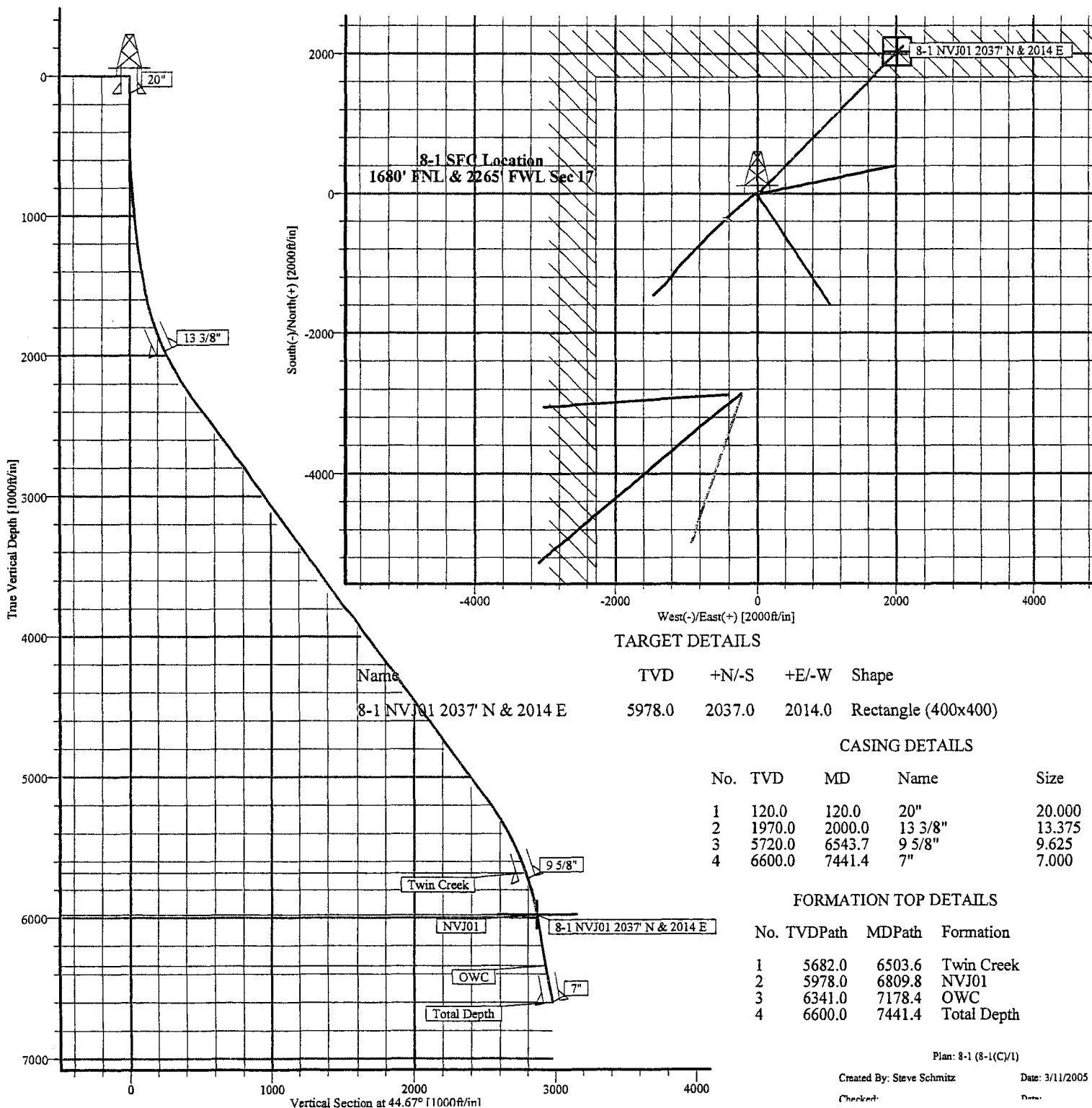
Water Depth: 0.0
Positional Uncertainty: 0.0
Convergence: -0.28

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
8-1(C)	0.0	48.0	6733931.77	1516740.09	38°48'19.460N	111°56'02.273W	N/A

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	1506.1	10.00	44.67	1500.0	74.7	73.8	0.83	44.67	105.0	
4	2365.8	35.79	44.67	2285.3	310.5	307.0	3.00	0.00	436.7	
5	5950.1	35.79	44.67	5192.7	1801.2	1780.8	0.00	0.00	2532.9	
6	6809.8	10.00	44.67	5978.0	2037.0	2014.0	3.00	180.00	2864.5	8-1 NVJ01 2037' N & 2014 E
7	7441.4	10.00	44.67	6600.0	2115.0	2091.1	0.00	0.00	2974.2	



Weatherford Planning Report

Company: Wolverine Gas & Oil Co of Utah
Field: Sevier County, Utah
Site: Pad A-2
Well: 8-1(C)
Wellpath: 1

Date: 3/11/2005 Time: 19:08:24 Page: 1
Co-ordinate(N/E) Reference: Well: 8-1(C), True North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,44.67Azi)
Plan: 8-1

Field: Sevier County, Utah

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: Utah, Central Zone
Coordinate System: Well Centre
Geomagnetic Model: igrf2005

Site: Pad A-2
T23S R01W Sevier County, Utah
NW/4 SE/4 Sec 17

Site Position: Northing: 6733932.00 ft Latitude: 38 48 19.460 N
From: Geographic Easting: 1516692.09 ft Longitude: 111 56 2.879 W
Position Uncertainty: 0.0 ft North Reference: True
Ground Level: 0.0 ft Grid Convergence: -0.28 deg

Well: 8-1(C)

Slot Name:

Well Position: +N/-S 0.0 ft Northing: 6733931.77 ft Latitude: 38 48 19.460 N
+E/-W 48.0 ft Easting: 1516740.09 ft Longitude: 111 56 2.273 W
Position Uncertainty: 0.0 ft

Wellpath: 1

Current Datum: SITE Height 0.0 ft Drilled From: Surface
Magnetic Data: 7/6/2004 Tie-on Depth: 0.0 ft
Field Strength: 52133 nT Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD) +N/-S Declination: 12.95 deg
ft ft +E/-W Mag Dip Angle: 64.57 deg
ft ft Direction deg
0.0 0.0 0.0 44.67

Plan: 8-1

Date Composed: 3/7/2005
Version: 1
Tied-to: From Surface

Principal: Yes

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1506.1	10.00	44.67	1500.0	74.7	73.8	0.83	0.83	0.00	44.67	
2365.8	35.79	44.67	2285.3	310.5	307.0	3.00	3.00	0.00	0.00	
5950.1	35.79	44.67	5192.7	1801.2	1780.8	0.00	0.00	0.00	0.00	
6809.8	10.00	44.67	5978.0	2037.0	2014.0	3.00	-3.00	0.00	180.00	8-1 NVJ01 2037' N & 2014
7441.4	10.00	44.67	6600.0	2115.0	2091.1	0.00	0.00	0.00	0.00	

Section 1 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00

Section 2 : Start Build 0.83

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
400.0	0.83	44.67	400.0	0.5	0.5	0.7	0.83	0.83	0.00	0.00
500.0	1.66	44.67	500.0	2.1	2.0	2.9	0.83	0.83	0.00	0.00
600.0	2.49	44.67	599.9	4.6	4.6	6.5	0.83	0.83	0.00	0.00
700.0	3.32	44.67	699.8	8.2	8.1	11.6	0.83	0.83	0.00	0.00
800.0	4.15	44.67	799.6	12.9	12.7	18.1	0.83	0.83	0.00	0.00
900.0	4.97	44.67	899.2	18.5	18.3	26.0	0.83	0.83	0.00	0.00
1000.0	5.80	44.67	998.8	25.2	24.9	35.4	0.83	0.83	0.00	0.00

Weatherford Planning Report

Company: Wolverine Gas & Oil Co of Utah
Field: Sevier County, Utah
Site: Pad A-2
Well: 8-1(C)
Wellpath: 1

Date: 3/11/2005 Time: 19:08:24
Co-ordinate(N/E) Reference: Well: 8-1(C), True North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,44.67Azi)
Plan: 8-1

Page: 2

Section 2 : Start Build 0.83

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
1100.0	6.63	44.67	1098.2	32.9	32.5	46.3	0.83	0.83	0.00	0.00
1200.0	7.46	44.67	1197.5	41.6	41.1	58.5	0.83	0.83	0.00	0.00
1300.0	8.29	44.67	1296.5	51.4	50.8	72.2	0.83	0.83	0.00	0.00
1400.0	9.12	44.67	1395.4	62.1	61.4	87.4	0.83	0.83	0.00	0.00
1506.1	10.00	44.67	1500.0	74.7	73.8	105.0	0.83	0.83	0.00	0.00

Section 3 : Start Build 3.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
1600.0	12.82	44.67	1592.0	87.9	86.9	123.6	3.00	3.00	0.00	0.00
1700.0	15.82	44.67	1688.9	105.5	104.2	148.3	3.00	3.00	0.00	0.00
1800.0	18.82	44.67	1784.4	126.6	125.2	178.0	3.00	3.00	0.00	0.00
1900.0	21.82	44.67	1878.1	151.3	149.6	212.8	3.00	3.00	0.00	0.00
2000.0	24.82	44.67	1970.0	179.5	177.4	252.3	3.00	3.00	0.00	0.00
2100.0	27.82	44.67	2059.6	211.0	208.6	296.7	3.00	3.00	0.00	0.00
2200.0	30.82	44.67	2146.8	245.8	243.0	345.6	3.00	3.00	0.00	0.00
2300.0	33.82	44.67	2231.3	283.8	280.6	399.1	3.00	3.00	0.00	0.00
2365.8	35.79	44.67	2285.3	310.5	307.0	436.7	3.00	3.00	0.01	0.08

Section 4 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
2400.0	35.79	44.67	2313.0	324.7	321.0	456.6	0.00	0.00	0.00	180.00
2500.0	35.79	44.67	2394.1	366.3	362.2	515.1	0.00	0.00	0.00	180.00
2600.0	35.79	44.67	2475.3	407.9	403.3	573.6	0.00	0.00	0.00	180.00
2700.0	35.79	44.67	2556.4	449.5	444.4	632.1	0.00	0.00	0.00	180.00
2800.0	35.79	44.67	2637.5	491.1	485.5	690.6	0.00	0.00	0.00	180.00
2900.0	35.79	44.67	2718.6	532.7	526.6	749.1	0.00	0.00	0.00	180.00
3000.0	35.79	44.67	2799.7	574.3	567.8	807.5	0.00	0.00	0.00	180.00
3100.0	35.79	44.67	2880.8	615.8	608.9	866.0	0.00	0.00	0.00	180.00
3200.0	35.79	44.67	2961.9	657.4	650.0	924.5	0.00	0.00	0.00	180.00
3300.0	35.79	44.67	3043.1	699.0	691.1	983.0	0.00	0.00	0.00	180.00
3400.0	35.79	44.67	3124.2	740.6	732.2	1041.5	0.00	0.00	0.00	180.00
3500.0	35.79	44.67	3205.3	782.2	773.4	1100.0	0.00	0.00	0.00	180.00
3600.0	35.79	44.67	3286.4	823.8	814.5	1158.4	0.00	0.00	0.00	180.00
3700.0	35.79	44.67	3367.5	865.4	855.6	1216.9	0.00	0.00	0.00	180.00
3800.0	35.79	44.67	3448.6	907.0	896.7	1275.4	0.00	0.00	0.00	180.00
3900.0	35.79	44.67	3529.8	948.5	937.8	1333.9	0.00	0.00	0.00	180.00
4000.0	35.79	44.67	3610.9	990.1	978.9	1392.4	0.00	0.00	0.00	180.00
4100.0	35.79	44.67	3692.0	1031.7	1020.1	1450.9	0.00	0.00	0.00	180.00
4200.0	35.79	44.67	3773.1	1073.3	1061.2	1509.3	0.00	0.00	0.00	180.00
4300.0	35.79	44.67	3854.2	1114.9	1102.3	1567.8	0.00	0.00	0.00	180.00
4400.0	35.79	44.67	3935.3	1156.5	1143.4	1626.3	0.00	0.00	0.00	180.00
4500.0	35.79	44.67	4016.4	1198.1	1184.5	1684.8	0.00	0.00	0.00	180.00
4600.0	35.79	44.67	4097.6	1239.7	1225.7	1743.3	0.00	0.00	0.00	180.00
4700.0	35.79	44.67	4178.7	1281.3	1266.8	1801.8	0.00	0.00	0.00	180.00
4800.0	35.79	44.67	4259.8	1322.8	1307.9	1860.2	0.00	0.00	0.00	180.00
4900.0	35.79	44.67	4340.9	1364.4	1349.0	1918.7	0.00	0.00	0.00	180.00
5000.0	35.79	44.67	4422.0	1406.0	1390.1	1977.2	0.00	0.00	0.00	180.00
5100.0	35.79	44.67	4503.1	1447.6	1431.3	2035.7	0.00	0.00	0.00	180.00
5200.0	35.79	44.67	4584.2	1489.2	1472.4	2094.2	0.00	0.00	0.00	180.00
5300.0	35.79	44.67	4665.4	1530.8	1513.5	2152.7	0.00	0.00	0.00	180.00
5400.0	35.79	44.67	4746.5	1572.4	1554.6	2211.2	0.00	0.00	0.00	180.00
5500.0	35.79	44.67	4827.6	1614.0	1595.7	2269.6	0.00	0.00	0.00	180.00
5600.0	35.79	44.67	4908.7	1655.6	1636.9	2328.1	0.00	0.00	0.00	180.00
5700.0	35.79	44.67	4989.8	1697.1	1678.0	2386.6	0.00	0.00	0.00	180.00
5800.0	35.79	44.67	5070.9	1738.7	1719.1	2445.1	0.00	0.00	0.00	180.00
5900.0	35.79	44.67	5152.0	1780.3	1760.2	2503.6	0.00	0.00	0.00	180.00
5950.1	35.79	44.67	5192.7	1801.2	1780.8	2532.9	0.00	0.00	0.00	180.00

Weatherford

Planning Report

Company: Wolverine Gas & Oil Co of Utah
 Field: Sevier County, Utah
 Site: Pad A-2
 Well: 8-1(C)
 Wellpath: 1

Date: 3/11/2005 Time: 19:08:24
 Co-ordinate(N/E) Reference: Well: 8-1(C), True North
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,44.67Azi)
 Plan: 8-1

Page: 3

Section 5 : Start Drop -3.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
6000.0	34.29	44.67	5233.5	1821.5	1801.0	2561.5	3.00	-3.00	0.00	-180.00
6100.0	31.29	44.67	5317.6	1860.0	1839.0	2615.7	3.00	-3.00	0.00	180.00
6200.0	28.29	44.67	5404.4	1895.4	1874.0	2665.4	3.00	-3.00	0.00	180.00
6300.0	25.29	44.67	5493.6	1927.4	1905.7	2710.4	3.00	-3.00	0.00	180.00
6400.0	22.29	44.67	5585.1	1956.1	1934.0	2750.8	3.00	-3.00	0.00	-180.00
6500.0	19.29	44.67	5678.6	1981.4	1959.0	2786.3	3.00	-3.00	0.00	180.00
6503.6	19.19	44.67	5682.0	1982.2	1959.8	2787.5	3.00	-3.00	0.00	-180.00
6543.7	17.98	44.67	5720.0	1991.3	1968.8	2800.2	3.00	-3.00	0.00	180.00
6600.0	16.29	44.67	5773.8	2003.1	1980.5	2816.8	3.00	-3.00	0.00	-180.00
6700.0	13.29	44.67	5870.5	2021.2	1998.4	2842.4	3.00	-3.00	0.00	-180.00
6809.8	10.00	44.67	5978.0	2037.0	2014.0	2864.5	3.00	-3.00	0.00	-180.00

Section 6 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
6900.0	10.00	44.67	6066.8	2048.1	2025.0	2880.2	0.00	0.00	0.00	0.00
7000.0	10.00	44.67	6165.3	2060.5	2037.2	2897.6	0.00	0.00	0.00	0.00
7100.0	10.00	44.67	6263.8	2072.8	2049.4	2914.9	0.00	0.00	0.00	0.00
7178.4	10.00	44.67	6341.0	2082.5	2059.0	2928.5	0.00	0.00	0.00	0.00
7200.0	10.00	44.67	6362.3	2085.2	2061.6	2932.3	0.00	0.00	0.00	0.00
7300.0	10.00	44.67	6460.7	2097.5	2073.8	2949.7	0.00	0.00	0.00	0.00
7400.0	10.00	44.67	6559.2	2109.9	2086.1	2967.0	0.00	0.00	0.00	0.00
7441.4	10.00	44.67	6600.0	2115.0	2091.1	2974.2	0.00	0.00	0.00	0.00

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec		<--- Longitude ---> Deg Min Sec	
8-1 NVJ01 2037° N & 2014° E			5978.0	2037.0	2014.0	6735958.98	1518763.95	38	48 39.592 N	111	55 36.831 W
-Rectangle (400x400)											
-Plan hit target											

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
120.0	120.0	20.000	26.000	20"
2000.0	1970.0	13.375	17.500	13 3/8"
6543.7	5720.0	9.625	12.250	9 5/8"
7441.4	6600.0	7.000	8.500	7"

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
6503.6	5682.0	Twin Creek		0.00	0.00
6809.8	5978.0	NVJ01		0.00	0.00
7178.4	6341.0	OWC		0.00	0.00
7441.4	6600.0	Total Depth		0.00	0.00



WOLVERINE GAS AND OIL COMPANY of Utah, LLC

Energy Exploration in Partnership with the Environment

April 11 2005

Via Fax (801) 359-3940 & Mail

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 W. N. Temple, suite 1210
Salt Lake City, UT 84114-5801

RE: Request for Directional Drilling
Wolverine Federal 8-1
Covenant Field, Sevier County, UT
API No. 43-041-30037

RECEIVED
APR 11 2005
DIV. OF OIL, GAS & MINING

Dear Ms. Whitney:

The purpose of this letter is to provide the information we discussed during our phone conversation on April 8th.

- Request for Exception to Rule 649-3-11: The proposed Wolverine Federal #8-1 will be directionally drilled from the surface location known as the A-2 Pad, which is the same pad used to drill the Wolverine Federal 17-3, 17-4 and 17-5. The well is drilled directionally because of the limited land for drilling wells and because we wanted to minimize the "footprint" of our operations. The proposed bottom hole location of Wolverine Federal 8-1 at the top of the Navajo is 450' FSL and 1010 FEL of Section 8 T23S-R1W, which is 10' outside the "400' window" allowed under Rule 649-3.2. Although the proposed top of the Navajo will be encountered 10' outside of the "400' window", the end of the well will fall within the "400' window" because the well is directionally drilled.

The proposed location falls within the Wolverine Federal Unit and Wolverine Gas & Oil owns the mineral lease for the proposed bottomhole location and the mineral leases within 460' radius of the proposed drilling location and for directly or diagonally offsetting drilling locations. Wolverine Gas & Oil owns all leases within 460 feet of the entire proposed trajectory of the wellbore.

The exception to Rule 649-3-11 is needed because a vertical well is not feasible, given our existing surface land situation.

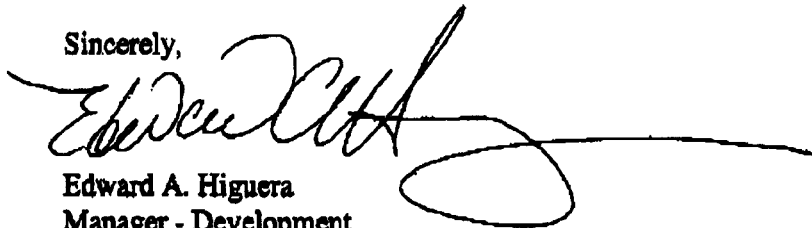
Ms. Diana Whitney

April 11, 2005

Page 2

If you have any questions, please call. Thanks again for your help. It is appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read 'Edward A. Higuera', with a long horizontal flourish extending to the right.

Edward A. Higuera
Manager - Development

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160

(UT-922)

April 15, 2005

Memorandum

To: Field Office Manger, Richfield Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2005 Plan of Development Wolverine Unit
Sevier County, Utah.

Pursuant to email between Steven R Hash, representing Wolverine Gas and Oil, the following well will have a modified bottom hole location. The new bottom hole location is shown below.

API #	WELL NAME	LOCATION
-------	-----------	----------

(Proposed PZ Navajo)

43-041-30037 Wolverine Federal 8-1 Sec 17 T23S R01W 1680FNL 2265FWL	
Bottom Hole Location	Sec 08 T23S R01W 0125FSL 1352FEL

This office has no objection to approving the change in bottom hole location at this time.

/s/ Michael L. Coulthard

bcc: File - Wolverine Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:4-15-05

DIVISION OF OIL, GAS AND MINING**SPUDDING INFORMATION**Name of Company: WOLVERINE GAS & OIL COMPANY OF UT LLCWell Name: WOLVERINE FED 8-1Api No: 43-041-30037 Lease Type: FEDERAL - FEE SURFSection 17 Township 23S Range 01W County SEVIERDrilling Contractor UNIT RIG # 111**SPUDDED:**Date 04/16/05Time 11:30 AMHow DRY**Drilling will Commence:** _____Reported by STEVE HASHTelephone # 1-918-599-9400Date 04/18/2005 Signed CHD

009

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: Wolverine Gas and Oil Company of Utah, LLC Operator Account Number: N 1655
Address: 55 Campau NW, One Riverfront Plaza
city Grand Rapids
state MI zip 49503-2616 Phone Number: (616) 458-1150

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304130037	Wolverine Federal 8-1		SESW	8	23S	1W	Sevier
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
A	99999	14667	4/16/2005			4/21/05	
Comments: <u>NAVA</u>							

CONFIDENTIAL**Well 2**

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Steven R Hash - Consulting Engineer

Name (Please Print)

Steven R. Hash

Signature

EXACT (918) 599-9400

4/18/2005

Title

Date

RECEIVED**CONFIDENTIAL****APR 18 2005**

DIV. OF OIL, GAS & MINING

EXACT Engineering, Inc., 415 S. Boston, Suite 734
Tulsa, OK 74103 (918) 599-9801

EXACT Engineering, Inc.www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevhash@exactengineering.com

CONFIDENTIAL PLEASE!

May 2, 2005

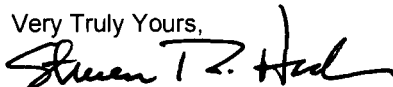
Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Wolverine Federal 8-1 well
Sec 17 T23S R01W
Sevier Co., UT
API# 43-041-30037

Dear Mr. Doucet,

On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed daily drilling reports for the subject well from inception on April 15, 2005 through April 30, 2005. The well was spudded at 11:30am on April 16, 2005. 13-3/8" csg was set at 2053' on April 22, 2005. We are presently drilling 12-1/4" hole at 4850' expecting to set 9-5/8" csg at approximately 6400'. We respectfully request that the enclosed information remain confidential

Very Truly Yours,



Steven R. Hash
Consulting Engineer for Wolverine Gas and Oil Company of Utah, LLC

copy without enclosures via email to:

Wolverine Gas & Oil Co of Utah, LLC: Richard Moritz, Sue Benson
EXACT Engineering, Inc. well file

RECEIVED

MAY 05 2005

DIV. OF OIL, GAS & MINING

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR		
04/30/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB.		
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
15	CHANGE MWD-BIT TRIP		4,850	283	18.50	15.3	Araplen	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.2	32	NC	2/32	9.0	0.50	4.8	4	9	5/9	3911	4/28	164,000	2640		270,600

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT-MTR	WOB	DULL CONDITION		
																	T	B	G
2	12-1/4"	REED	HP-43A	437	B73515	22	22	22	2054	3911	1857	75.00	24.8	Y	40-82	35-40	4	8	1
3	12-1/4"	SEC	EBXS16S	437	10627405	24	24	24	3911	4850	939	56.00	16.8	Y	45-82	40-45	8	8	1
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	Flow Rate (gpm)			
													60 spm	80 spm	100 spm	120 spm
1	National	6"	8.5	2.93	125	371	145	145	1950	250			1	225		
2	National	6"	8.5	2.93	125	371							2	225		
Both				5.86	250	742	65	75								

SLOW PUMP

		60 spm	80 spm	100 spm
1	225			
2	225			

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
12-1/4"- BIT		1.50		
Directional Assembly		114.54		
5 - 6 5/8" SWDP		150.00		
X-OVER		3.59		
19-5"SWDP		577.03		
JARS		31.80		
4-5"HWDP.		121.00		
Total BHA:		999.46		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
133	55	205	98	248

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
25			
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	7"

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	4/23
Next BOP Test	5/23
Last Safety Meeting	4/30
Last BOP Drill	4/28
Last Operate Pipe Ra	4/30
Last Operate Blind Ra	4/30
Last Operate Annular	4/27
LAST CASING	NEXT CASING
13-3/8" @ 2053	9-5/8"

SURVEYS

MD	INCL	AZIMUTH	TVD	SECTION	N+ S-	E+ /W-	DLS	TOOL	MD	INCL	AZIMUTH	TVD	SECTION	N+ S-	E+ /W-	DLS	TOOL
4,235	28.00	38.00	3869	####	####	####	1.80	MWD	4,424	28.8	41.90	4036	####	####	####	1.60	MWD
4,330	28.10	39.10	3953	####	####	####	0.55	MWD	4,520	28.50	40.90	4120	####	####	####	0.59	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	2:00	2.00	DRILL FROM 4567'-4597'
2:00	2:30	0.50	WORK ON PUMP
2:30	16:00	13.50	DRILL FROM 4597'-4819'
16:00	16:30	0.50	SERVICE RIG-WORK BOP
16:30	19:30	3.00	DRILL FROM 4819'-4850'
19:30	22:30	3.00	PUMP PILL TRIP OUT TO CHANGE BIT-----TIGHT FROM 3855-3811'
22:30	0:00	1.50	WORK BLIND RAMS-CHANGE OUT BIT-MUD MOTOR-MWD...
16:30			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

CONFIDENTIAL

Engineering & Supervision

EXACT Engineering, Inc.

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
04/29/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
14	DRILLING	4,543	414	23.50	17.6	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.2	32	NC	2/32	9.0	0.50	4.8	4	9	5/9	3911	4/28	164,000	2640		270,600

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION		
															RT+MTR		T	B	G
2	12-1/4"	REED	HP-43A	437	B73515	22	22	22	2054	3911	1857	75.00	24.8	Y	40-82	35-40	4	8	1
3	12-1/4"	SEC	EBXS16S	437	10627405	24	24	24	3911		656	37.50	17.5	Y	45-82	40-45			
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

SLOW PUMP

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	50 spm			80 spm	100 spm
1	National	6"	8.5	2.93	125	371	145	145	1950	250			1	225			
2	National	6"	8.5	2.93	125	371							2	225			
Both				5.86	250	742	65	75									

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION	MO	TVD	LITHOLOGY	RIG INFO	
12-1/4"- BIT		1.50			Arapiean				Rig No	Unit 111
Directional Assembly		114.54							Cell Narren	918-645-6671
5 - 6 5/8" SWDP		150.00							Last BOP Test	4/23
X-OVER		3.59			BOTTOMS UP TIME	BG GAS	GAS DATA		Next BOP Test	5/23
							CONN GAS	TRIP GAS		
19-5"SWDP		577.03			25				Last Safety Meeting	4/29
JARS		31.80			GAS UNITS	FROM	SHOWS		Last BOP Drill	4/28
							TO	ROP (FT/HR)		
4-5"HWDP.		121.00							Last Operate Pipe Ran	4/29
									Last Operate Blind Ran	4/28
Total BHA:		999.46							Last Operate Annular	4/27
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	LAST CASING	NEXT CASING
133	55	205	98	248	5,736	17	5,753	7"	13-3/8"@ 2053	9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
4,235	28.00	38.00	3869	#####	#####	#####	1.80	MWD	4,424	28.8.	41.90	4036	#####	#####	#####	1.60	MWD
4,330	28.10	39.10	3953	#####	#####	#####	0.55	MWD	4,520	28.50	40.90	4120	#####	#####	#####	0.59	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	16:30	16.50	DRILL FROM 4143-4441'
16:30	17:00	0.50	SERVICE RIG WORK BOP
17:00	0:00	7.00	DRILL FROM 4441'-4567'
0:00			
0:00			
9:00			
0:00			
16:30			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

CONFIDENTIAL

FAST DATA

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR		COUNTY, STATE	SPUD DATE	API#		SUPERVISOR
04/28/05	Wolverine Federal # 8-1	Unit Rig #111		Sevier, UT	4/16/05	43-041-30037		D. NAYLOR-R. REB.
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
13	DRILLING		4,153	246	14.50	17.0	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.3	31	NC	2/32	9.0	0.50	4.8	4	9	5/9	3911	4/28	164,000	2640		270,600

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
2	12-1/4"	REED	HP-43A	437	B73515	22	22	22	2054	3911	1857	75.00	24.8	Y	40-82	35-40	4	8	1
3	12-1/4"	SEC	EBXS16S	437	10627405	24	24	24	3911		242	14.00	17.3	Y	45-82	40-45			
													#DIV/OI						
													#DIV/OI						

HYDRAULICS

SLOW PUMP

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm 80 spm 100 spm		
1	National	6"	8.5	2.93	125	371	145	145	1950	250			1	225	
2	National	6"	8.5	2.93	125	371							2	225	
Both				5.86	250	742	65	75							

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
12-1/4"- BIT		1.50			Arapiean				Rig No	Unit 111
Directional Assembly		114.54							Cell Narren	918-645-6671
5 - 6 5/8" SWDP		150.00							Last BOP Test	4/23
X-OVER		3.59			GAS DATA				Next BOP Test	5/23
19-5"SWDP		577.03			BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS	Last Safety Meeting	4/28
JARS		31.80			25				Last BOP Drill	4/28
4-5"HWDP.		121.00			SHOWS				Last Operate Pipe Rar	4/28
					GAS UNITS	FROM	TO	ROP (FT/HR)	Last Operate Blind Ra	4/28
									Last Operate Annular	4/27
Total BHA:		999.46							LAST CASING	NEXT CASING
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG		
133	55	205	98	248	5,736	17	5,753	7"	13-3/8"@ 2053	9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
3,952	29.70	50.70	3620	#####	#####	#####	1.06	MWD	4,141	28.00	41.60	3787	#####	#####	#####	2.57	MWD
4,046	28.00	46.80	3702	#####	#####	#####	2.70	MWD									

DAILY ACTIVITY

FROM		LAST 24 HOURS:
0:00	0:30	0.50
0:00	0:30	0.50
0:30	3:00	2.50
0:30	3:00	2.50
3:00	5:30	2.50
3:00	5:30	2.50
5:30	8:30	3.00
5:30	8:30	3.00
8:30	9:00	0.50
8:30	9:00	0.50
9:00	16:00	7.00
9:00	16:00	7.00
16:00	16:30	0.50
16:00	16:30	0.50
16:30	0:00	7.50
16:30	0:00	7.50
0:00		
0:00		
0:00		
23:00		
0:00		
0:00		
0:00		
0:00		
0:00		
0:00		
0:00		
Daily Total	24.00	

COST DATA

CONFIDENTIAL

Engineering & Supervision

EXACT Engineering, Inc.

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
04/27/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
12	DRILLING	3,907	407	23.50	17.3	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.1	32	NC	2/32	8.0	TR	4.1	4	9	6/10	3669	4/27-15:30	162,000	2600		#####

BIT DATA

BITS NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION
2	12-1/4"	REED	HP-43A	437	B73515	22 22 22	2054		1446	74.50	19.4	Y	40-82	35-40	
											#DIV/0!				
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	125	371	145	145	1875	250			1	225	
2	National	6"	8.5	2.93	125	371							2	225	
Both				5.86	250	742	65	75							

SLOW PUMP

DRILL STRING					GEOLOGIC				GENERAL INFO			
BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.		FORMATION	MD	TVD	LITHOLOGY	RIG INFO			
12-1/4" BIT	1.50				Arapiean				Rig No	Unit 111		
Directional Assembly	110.00								Cell Narren	918-645-6671		
5 - 6 5/8" SWDP	150.00								Last BOP Test	4/23		
X-OVER	3.59								Next BOP Test	5/23		
19-5"SWDP	577.03								Last Safety Meeting	4/27		
JARS	31.80								Last BOP Drill	4/26		
4-5"HWDP.	121.00								Last Operate Pipe Rar	4/26		
									Last Operate Blind Ra	4/26		
Total BHA:	994.92								Last Operate Annular	4/27		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	LAST CASING	NEXT CASING		
125	55	175	105	248	5,736	17	5,753	7"	13-3/8"@ 2053	9-5/8"		

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
3,574	32.50	49.50	3297	#####	894.08	865.07	0.71	MWD	3,764	31.20	50.20	3458	#####	958.50	941.62	0.54	MWD
3,669	31.70	50.00	3377	#####	926.70	903.60	0.89	MWD	3,858	30.50	51.90	3539	#####	988.80	979.10	1.19	MWD

DAILY ACTIVITY

FROM	LAST 24 HOURS:											
0:00	16:00	16.00	DRILL FROM 3500'-3811'									
16:00	16:30	0.50	SERVICE RIG - WORK BOP									
16:30	0:00	7.50	DRILL FROM 3811'-3907'									
0:00												
0:00												
7:30												
0:00												
17:00												
0:00												
0:00												
0:00												
23:00												
0:00												
0:00												
0:00												
0:00												
0:00												
Daily Total	24.00											

CONFIDENTIAL

Engineering & Supervision

EXACT Engineering, Inc.

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#		SUPERVISOR	
04/26/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037		D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
11	DRILLING		3,500	400	17.00	23.5	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.8	30	NC	2/32	8.0	TR	3.3	3	4	7/11	3130	4/26/09:00	125,000	2600		206,250

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION
2	12-1/4"	REED	HP-43A	437	B73515	22 22 22	2054		1446	51.00	28.4	Y	40-82	35-40	
											#DIV/O!				
											#DIV/O!				
											#DIV/O!				

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	125	371	145	145	1675	250			1	150	
2	National	6"	8.5	2.93	125	371							2	150	
Both				5.86	250	742	65	75							

SLOW PUMP

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO
12-1/4" - BIT	1.50			Arapiean				Rig No Unit 111
Directional Assembly	110.00							Cell Norren 918-645-6671
5 - 6 5/8" SWDP	150.00							Last BOP Test 4/23
X-OVER	3.59							Next BOP Test 5/23
19-5"SWDP	577.03							Last Safety Meeting 4/26
JARS	31.80							Last BOP Drill 4/26
4-5"HWDP.	121.00							Last Operate Pipe Ra 4/26
								Last Operate Blind Ra 4/26
Total BHA:	994.92							Last Operate Annular 4/23
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
110	55	130	100	200	5,736	17	5,753	7"
								13-3/8" @ 2053 9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
3,196	32.40	40.90	2979	#####	755.09	714.29	1.18										
3,385	33.30	47.50	3138	#####	826.31	788.15	0.52										

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	1:00	1.00	DRILL FROM 3100'-3117'
1:00	3:00	2.00	PUMP PILL TRIP OUT HOLE TO CHANGE MWD.
3:00	4:00	1.00	WORK BLIND RAMS-CHANGE OUT MWD-TEST SAME OK.
4:00	6:30	2.50	TRIP IN
6:30	7:30	1.00	WASH & REAM FROM 3054'-3117' - 2' FILL
7:30	16:30	9.00	DRILL FROM 3117'-3306'
16:30	17:00	0.50	SERVICE RIG - WORK BOP.
17:00	0:00	7.00	DRILL FROM 3306'-3500'
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

CONFIDENTIAL

FOOT DATA

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	AP#	SUPERVISOR	
04/25/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
10	DRILLING	3,100	513	21.50	23.9	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.8	30	NC	2/32	9.5	TR	4.3	3	7	6/8	2749	4/25/05	108,000	2600		178,200

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT-MTR	WOB	DULL CONDITION
1	17.500	HTC	0-9	RR	602085	28-28 28 28	135	2054	1919	123.50	15.5	Y	40-82	35-40	4 4 1
2	12-1/4"	REED	HP-43A	437	B73515	22 22 22	2054		946	34.00	27.8	Y	40-83	30-35	
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	125	371	145	145	1550	250			1	150	
2	National	6"	8.5	2.93	125	371							2	150	
Both				5.86	250	742	65	75							

SLOW PUMP

DRILL STRING				GEOLOGIC				GENERAL INFO			
BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO			
12-1/4" BIT	1.50			Arapiean				Rig No	Unit 111		
Directional Assembly	110.00							Cell Narren	918-645-6671		
5 - 6 5/8" SWDP	150.00							Last BOP Test	4/23		
X-OVER	3.59							Next BOP Test	5/23		
19-5"SWDP	577.03							Last Safety Meeting	4/25		
JARS	31.80							Last BOP Drill	4/24		
4-5"HWDP	121.00							Last Operate Pipe Ra	4/25		
								Last Operate Blind Ra	4/23		
Total BHA:	994.92							Last Operate Annular	4/23		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	LAST CASING NEXT CASING		
110	55	130	100	200	5,736	17	5,753	7"	13-3/8"@ 2053 9-5/8"		

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
2,629	27.50	43.50	2488	757.42	544.21	526.82	1.07		2,818	28.30	43.80	2655	845.69	608.54	587.29	0.73	
2,724	27.80	42.80	2572	801.50	576.38	556.97	0.47		2,913	29.60	41.70	2738	891.64	642.32	618.49	1.74	

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	17:00	17.00	DRILL FROM 2487'-2991'
17:00	17:30	0.50	SERVICE RIG-WORK BOP.
17:30	18:30	1.00	DRILL FROM 2991'-3030'
18:30	19:30	1.00	WORK ON PUMPS
19:30	21:00	1.50	DRILL FROM 3030'-3060'
21:00	22:00	1.00	MWD NOT PULSING-CHECK PUMPS-WEAK PULSE-MWD FAILED
22:00	0:00	2.00	DRILL FROM 3060' TO 3100'
12:30			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#		SUPERVISOR	
04/24/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037		D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
9	DRILLING		2,487	433	12.50	34.6	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.1	35	NC	2/32	7.0	0.50	7.5	4	12	6/9	1844	4/21/09:00	83,000	2480		136,950

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
						1	17.500	HTC									0-9	RR	602085
2	12-1/4"	REED	HP-43A	437	B73515	22	22	22	2054		433	12.50	34.6	Y	40-83	30-35			
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD				
														60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	125	371			1550	250			1	150		
2	National	6"	8.5	2.93	125	371							2	150		
Both				5.86	250	742	65	75								

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO
12-1/4" BIT	1.50			Arapiean				Rig No Unit 111
Directional Assembly	110.00							Cell Narren 918-645-6671
5 - 6 5/8" SWDP	150.00							Last BOP Test 4/23
X-OVER	3.59			BOTTOMS UP TIME	BG GAS	GAS DATA CONN GAS	TRIP GAS	Next BOP Test 5/23
19-5"SWDP	577.03							Last Safety Meeting 4/24
JARS	31.80			GAS UNITS	FROM	SHOWS TO	ROP (FT/HR)	Last BOP Drill 4/24
4-5"HWDP.	121.00							Last Operate Pipe Rar 4/23
								Last Operate Blind Ra 4/23
Total BHA:	994.92							Last Operate Annular 4/23
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
110	55	130	100	200	5,736	17	5,753	7"
								13-3/8"@ 2053 9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
2,125	25.90	43.30	2043	519.00	371.61	363.34	2.08										
2,346	29.10	44.10	2240	621.34	444.22	434.44	1.39										

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	4:00	4.00	FINISH TESTING BOP-TEST CASING 30 MIN.@ 1500 PSI.-TEST KOOMEY-INSTALL WEAR BUSHING.
4:00	8:00	4.00	PICKUP DIR. TOOLS & TRIP IN HOLE
8:00	10:30	2.50	DRILL CEMENT - FLOAT - SHOE - TAGGED CEMENT @ 1985'
10:30	11:00	0.50	DRILL FROM 2054'-2074'
11:00	11:30	0.50	SERVICE RIG - TEST FROMATION EQUVELENT TO #10.5 MUD HELD GOOD = 102 PSI.
11:30	12:00	0.50	DRILL FROM 2074'-2115'
12:00	12:30	0.50	WORK ON PUMPS
12:30	0:00	11.50	DRILL FROM 2115'-2487'
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR		COUNTY, STATE	SPUD DATE	API#		SUPERVISOR
04/23/05	Wolverine Federal # 8-1	Unit Rig #111		Sevier, UT	4/16/05	43-041-30037		D. NAYLOR-R. REB.
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
8	TESTING BOPS		2,054	0	0.00	#DIV/0!	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.1	35	NC	2/32	7.0	0.50	7.5	4	12	6/9	1844	4/21/09:00	83,000	2480		136,950

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION
1	17.500	HTC	0-9	RR	602085	28-28 28 28	135	2054	1919	123.50	15.5	Y	40-82	35-40	4 4 1
											#DIV/0!				
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

SLOW PUMP

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	125	371			1050	175			1		
2	National	6"	8.5	2.93	125	371							2		
Both				5.86	250	742	65	75							

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO
12-1/4" BIT	1.50			Arapiean				Rig No Unit 111
Directional Assembly	110.00							Cell Narren 918-645-6671
5 - 6 5/8" SWDP	150.00							Last BOP Test 4/23
X-OVER	3.59							Next BOP Test 5/23
15-5"SWDP	452.00							Last Safety Meeting 4/17
JARS	31.80							Last BOP Drill
4-5"HWDP.	121.00							Last Operate Pipe Ram 4/23
								Last Operate Blind Ram 4/23
								Last Operate Annular 4/23
Total BHA:	869.89							LAST CASING NEXT CASING
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
100	55	120	95	190	5,736	17	5,753	7"
								13-3/8" @ 2053 9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	4:00	4.00	wait on cement-stayed @ ground level
4:00	6:00	2.00	nippel down 20" diverter-cut off-set out same
6:00	8:30	2.50	make final cut weld on 13-3/8" well head
8:30	14:00	5.50	nippel up bops
14:00	0:00	10.00	install test plug-test blind rams-pipe rams-choke manifold-choke line valve-hcr valve-kill line valves-check valve-
11:30			b-section-upper & lower kelly valves-dart valve-floor safety valve-all tested to low side=200 psi-5 min. each-
0:00			high side-5000 psi - 10 min. each ALL OK-annular-200 psi-5 min & 2500 psi 10 min. = ok
0:00			BOP TEST WITNESSED BY RANDY BYWATER WITH BLM..
0:00			
0:00			CHANGED OUT LOWER KELLY VALVE - CHANGE OUT DOOR GASKET SEAL PIT SIDE ON PIPE RAMS
0:00			GREASED & WORKED MANAFOLD VALVES
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	AP#	SUPERVISOR	
04/22/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
7	1"-CEMENT	2,054	46	4.50	10.2	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.1	35	NC	2/32	7.0	0.50	7.5	4	12	6/9	1844	4/21/09:00	83,000	2480		136,950

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd) or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION
1	17.500	HTC	0-9	RR	602085	28-28 28	135	2054	1919	123.50	15.5	Y	40-82	35-40	T B G 4 4 I
											#DIV/0!				
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ³	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	125	371			1050	175			1		
2	National	6"	8.5	2.93	125	371							2		
Both				5.86	250	742	65	75							

SLOW PUMP

DRILL STRING

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO
17 1/2" Bit	1.50			Arapiean				Rig No Unit 111
Directional Assembly	110.00							Cell Narren 918-645-6671
5 - 6 5/8" SWDP	150.00							Last BOP Test
X-OVER	3.59							Next BOP Test
15-5"SWDP	452.00							Last Safety Meeting 4/17
JARS	31.80							Last BOP Drill
4-5"HWDP.	121.00							Last Operate Pipe Rar
								Last Operate Blind Ra
Total BHA:	869.89							Last Operate Annular 4/16
SYRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
100	55	120	95	190	5,736	17	5,753	20" @ 121 13-3/8" @ 2200

GEOLOGIC

GENERAL INFO

SURVEYS

MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
1,812	19.50	46.50	1756	397.00	283.00	279.00	0.20	MWD									
1,906	22.10	45.10	1844	431.00	306.00	303.00	2.70	MWD									

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	2:00	2.00	SHORT TRIP OUT TO 110'---TRIP IN TO 1927'
2:00	2:30	0.50	WASH & REAM FROM 1927' TO 2008'---7' FILL
2:30	7:00	4.50	DRILL FROM 2008' TO 2054'
7:00	8:00	1.00	CIRC. & PUMP HIGH VIS SWEEP AROUND CLEAN HOLE
8:00	11:30	3.50	TRIP OUT -- LAY DOWN MWD-MUD MOTOR-BIT
11:30	16:30	5.00	RIG UP RUN 46-JTS 13-3/8" #61--ST&C--USWA--2057--SET @ 2053.50=SHOE DEPTH--FLOAT COLLAR @ 2008'
16:30			RUN 9 CENTRALIZERS-DEPTHS=2032'-1942-1852-1763-1673-1582-1492-1401-1311'
0:00	19:00	2.50	CIRC. & WASH 13-3/8" CASING 17' TO BOTTOM--8' FILL
19:00	23:00	4.00	RIG UP CEMENT 13-3/8" WITH-575-SKS.-HIFILLV CEMENT-1#/SACK COMNUTITE-W/Rq-23.96-Yeild=3.86-LBS/GAL-1
23:00			TAIL WITH-475-SKS PREM PLUS-1%CACL2,.25%FLOCELE, 1# GRANULITE-W/Rq-5.20-YEILD=1.18-LBs/Gal=15.6
0:00			Displace With 306.5 BBLS of H2O LAND PLUG - HELD GOOD- CIRC-APPOX-87-BBLS CEMENT TO RESERVE PIT.
23:00	0:00	1.00	PICKUP-120' OF 1" PIPE-PUMP 30 BBLS OF CLASS G CEMENT=TOP JOB- CEMENT DID NOT FALL
0:00			HAD GOOD CIRC. ALL THREW CEMENT JOB.
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

CONFIDENTIAL

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
04/21/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
6	Wiper trip	2,008	262	21.00	12.5	Araplen	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.7	31	NC	2/32	7.0	0.50	6.3	4	12	6/9	1844	4/21/09:00	60,000	2450		99,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
1	17.500	HTC	0-9	RR	602085	28-28	28	28	135		1873	119.00	15.7	Y	40-82	35-40			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ³	ECD	FLOW / GPM			
														60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	125	371			1050	175			1			
2	National	6"	8.5	2.93	125	371							2			
Both				5.86	250	742	65	75								

SLOW PUMP

	60 spm	80 spm	100 spm
1			
2			

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
17 1/2" Bit		1.50		
Directional Assembly		110.00		
5 - 6 5/8" SWDP		150.00		
X-OVER		3.59		
15-5"SWDP		452.00		
JARS		31.80		
4-5"HWDP.		121.00		
Total BHA:		869.89		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
100	55	120	95	190

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	
Next BOP Test	
Last Safety Meeting	4/17
Last BOP Drill	
Last Operate Pipe Ram	
Last Operate Blind Ram	
Last Operate Annular	4/16
LAST CASING	NEXT CASING
20" @ 121	13-3/8" @ 2200

SURVEYS

MD	INCL	AZIMUTH	TVD	SECTION	N+/-S-	E+/W-	DLS	TOOL
1,812	19.50	46.50	1756	397.00	283.00	279.00	0.20	MWD
1,906	22.10	45.10	1844	431.00	306.00	303.00	2.70	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	1:30	1.50	Work on pumps, clean suction
1:30	15:00	13.50	Drill & surveys 1746 to 1935
15:00	15:30	8.00	Rig service
15:30	12:00	1.00	Drill & surveys 1935 to 2008
12:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			6am drilling @ 2046
0:00			
0:00			
Daily Total		24.00	

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
04/20/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
5	Work on pumps	1,746	340	22.50	15.1	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.5	31	NC	2/32	7.0	0.50	5.7	3	9	5/7	1528	4/20/09:00	47,000	2200		77,550

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd" or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
1	17.500	HTC	0-9	RR	602085	28-28	28	28	135		1611	98.00	16.4	Y	40-82	35-40			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ³	ECD	Flow Rate (gpm)			
													1	2	3	4
1	National	6"	8.5	2.93	125	371			1050	175			1			
2	National	6"	8.5	2.93	125	371							2			
Both				5.86	250	742	65	75								

SLOW PUMP

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ³	ECD	Flow Rate (gpm)			
													1	2	3	4
1	National	6"	8.5	2.93	125	371			1050	175			1			
2	National	6"	8.5	2.93	125	371							2			
Both				5.86	250	742	65	75								

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
17 1/2" Bit		1.50		
Directional Assembly		110.00		
5 - 6 5/8" SWDP		150.00		
X-OVER		3.59		
15-5"SWDP		452.00		
JARS		31.80		
4-5"HWDP.		121.00		
Total BHA:		869.89		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
100	55	120	95	190

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	
Next BOP Test	
Last Safety Meeting	4/17
Last BOP Drill	
Last Operate Pipe Ram	
Last Operate Blind Ram	
Last Operate Annular	4/16
LAST CASING	NEXT CASING
20" @ 121	13-3/8" @ 2200

SURVEYS

MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
1,434	16.10	46.30	1395	266.00	204.00	199.00	1.30	MWD	1,528	16.70	43.50	1485	311.00	222.00	218.00	1.00	MWD
1,622	17.30	43.70	1575	339.00	242.00	237.00	0.60	MWD	1,717	17.50	46.30	1666	367.00	262.00	257.00	0.80	MWD

DAILY ACTIVITY

[illegible]

CONFIDENTIAL

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
04/19/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
4	DRILLING	1,406	351	23.00	15.3	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.3	31	NC	2/32	9.0	TR	2.4	2	1	1/2	749	4/18/2005	63,000	980		103,950

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd) or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT-MTR	WOB	DULL CONDITION		
																	T	B	G
1	17.500	HTC	0-9	RR	602085	28-28	28	28	135		1266	75.50	16.8	Y	40-82	35-40			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

[illegible]

~~SLOW PUMP~~

	60 spm	80 spm	100 spm
1			
2			

DRILL STRING

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.
17 1/2" Bit	1.50		
Directional Assembly	110.00		
5 - 6 5/8" SWDP	150.00		
X-OVER	3.59		
15-5"SWDP	452.00		
JARS	31.80		
4-5"HWDP.	121.00		
Total BHA:	869.89		
STRING WT.	BHA WT.	PU WT.	SO WT.
80	55	115	60
			175

GEOLOGIC

[illegible]

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	
Next BOP Test	
Last Safety Meeting	4/17
Last BOP Drill	
Last Operate Pipe Ram	
Last Operate Blind Ram	
Last Operate Annular	4/16
LAST CASING	NEXT CASING
20" @ 121	13-3/8" @ 2700

SURVEYS

[illegible]

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	13:00	13.00	SLIDE & DRILL FROM 1050' TO 1273'
13:00	13:30	0.50	SERVICE RIG
13:30	18:00	4.50	SLIDE & DRILL FROM 1273' TO 1336'
18:00	18:30	0.50	WORK ON # 2 PUMP-ROCK UNDER SUCTION VALVE
18:30	0:00	5.50	SLIDE & DRILL FROM 1336' TO 1406'
0:00			
0:00			
0:00			
0:00			
16:30			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

CONFIDENTIAL

CONFIDENTIAL

COST DATA

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
04/18/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
3	DRILLING	1,050	301	17.00	17.7	Arapien	6950

MUD DATA

WT	VIS	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.1	31	NC	2/32	7.5	TR	2.4	2	1	1/2	749	4/17-23:30	63,000	980		103,950

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd" or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
1	17.500	HTC	0-9	RR	602085	28-28	28	28	135		915	52.50	17.4	Y	40-82	35-40			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

SLOW PUMP

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	120	351			1050	175			1		
2	National	6"	8.5	2.93	120	351							2		
Both				5.86	240	702									

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO
17 1/2" Bit	1.50			SURFACE				Rig No Unit 111
Directional Assembly	110.00							Cell Narren 918-645-6671
5 - 6 5/8" SWDP	150.00							Last BOP Test
X-OVER	3.59			BOTTOMS UP TIME	BG GAS	GAS DATA CONN GAS	TRIP GAS	Next BOP Test
15-5"SWDP	452.00							Last Safety Meeting 4/17
JARS	31.80			GAS UNITS	FROM	SHOWS TO	ROP (FT/HR)	Last BOP Drill
4-5"HWDP.	121.00							Last Operate Pipe Rar
								Last Operate Blind Ra
Total BHA:	869.89							Last Operate Annular 4/16
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
80	55	115	60	175	5,736	17	5,753	
								LAST CASING NEXT CASING
								20" @ 121 13-3/8" @ 2700

SURVEYS

MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
750	17.00	43.80	740		5.34	1.56											

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	3:00	3.00	CHANGE OUT MUD MOTOR - TEST MWD - OK.
3:00	4:00	1.00	TRIP IN
4:00	4:30	0.50	WASH & REAM FROM 677' TO 749' - 5' FILL
4:30	7:00	2.50	SLIDE & DRILL FROM 749' TO 793'
7:00	8:30	1.50	WORK ON # 1 PUMP - CHANGE VALVE & SEAT OUT
8:30	13:30	5.00	SLIDE & DRILL FROM 793' TO 878'
13:30	14:00	0.50	WORK ON # 2 PUMP - ROCK UNDER VALVE
14:00	16:00	2.00	SLIDE & DRILL FROM 878' TO 902'
16:00	16:30	0.50	SERVICE RIG
16:30	0:00	7.50	SLIDE & DRILL FROM 902' TO 1050'
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

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(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
04/17/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	Rodger Rebsom	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
2	TRIP OUT	749	458	23.00	19.9	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
9.1	31	NC	2/32	7.5	TR	2.4	2	1	1/2	749	4/17-23:30	63,000	980		103,950

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd" or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
1	17.500	HTC	0-9	RR	602085	28-28	28	28	135		614	35.50	17.3	Y	0-82	12-15			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

[illegible]

SLOW PUMP

	60 spm	80 spm	100 spm
1			
2			

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
17 1/2" Bit		1.50		
Directional Assembly		110.00		
5 - 6 5/8" SWDP		150.00		
X-OVER		3.59		
15-5"SWDP		452.00		
Total BHA:		717.09		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
65	45	80	55	145

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
SURFACE			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	
Next BOP Test	
Last Safety Meeting	4/16
Last BOP Drill	
Last Operate Pipe Ram	
Last Operate Blind Ram	
Last Operate Annular	4/16
LAST CASING	NEXT CASING
20" @ 121	13-3/8" @ 2700

SURVEYS

[illegible]

DAILY ACTIVITY

			LAST 24 HOURS:
FROM			
0:00	13:00	7.00	SLIDE DRILL FROM 291' TO 536'
13:00	13:30	0.50	SERVICE RIG
13:30	23:30	10.00	SLIDE DRILL FROM 536' TO 749'
23:30	0:00	0.50	TRIP OUT-MWD FAILED
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total		18.00	

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TEST DATA

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
04/16/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	Rodger Rebsom	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
1	DRILL & SLIDE	291	156	12.50	12.5	Arapien	6950

MUD DATA

[illegible]

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
1	17.500	SMITH	X-74	RR	602085	28	28	28	135		156	12.50	12.5	Y	0-82	12-15			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

[illegible]

SLOW PUMP

		60 spm	80 spm	100 spm
1				
2				

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
17 1/2" Bit		1.50		
Directional Assembly		110.00		
5 - 6 5/8" SWDP		150.00		
X-OVER		3.00		
Total BHA:		264.50		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
45	25	48	38	0

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
SURFACE			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	
Next BOP Test	
Last Safety Meeting	4/16
Last BOP Drill	
Last Operate Pipe Ram	
Last Operate Blind Ram	
Last Operate Annular	4/16
LAST CASING	NEXT CASING
20" @ 121	13-3/8" @ 2700

SURVEYS

MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
173	2.70	322.50	173	0.57	3.23	-2.48	1.56	322.5	233	4.50	321.10	233	1.10	6.22	-4.77	3.05	322.53
203	3.60	323.50	202	0.82	4.55	-3.47	3.01	322.6	266	5.40	345.00	266	2.05	8.73	-5.99	6.75	325.57

DAILY ACTIVITY

[illegible]

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COST DATA

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	AP#	SUPERVISOR	
04/15/05	Wolverine Federal 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	Rodger Rebsom	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
0	Nipple Up 20" Diverter	137	0	0.00	#DIV/OI	Arapien	6950

MUD DATA

[illegible]

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA		IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																T	B	G
												#DIV/0!						
												#DIV/0!						
												#DIV/0!						
												#DIV/0!						

HYDRAULICS

[illegible]

~~SLOW PUMP~~

		60 spm	80 spm	100 spm
1				
2				

DRILL STRING

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.
Total BHA:	0.00		
STRING WT.	BHA WT.	PU WT.	SO WT.
			ROT. TORQUE

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	
Next BOP Test	
Last Safety Meeting	4/15
Last BOP Drill	
Last Operate Pipe Ran	
Last Operate Blind Ran	
Last Operate Annular	
LAST CASING	NEXT CASING
20" @ 121	13-3/8" @ 2700'

SURVEYS

[illegible]

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	6:00	6.00	Rig Idel-Wait On Daylight
6:00	12:00	6.00	Set Rest Of Rig In Its Place-Release Both Trucks & Crane @ Noon.
12:00	16:00	4.00	Rig Up---Put Rig On Daywork @ 16:00 Hours 4/15/2005
16:00	18:00	2.00	Weld 20" Flange On Conductor
18:00	0:00	6.00	Nippel Up 20" Diverter---Fill Mud Tanks--Prime Pumps
0:00			
0:00			
0:00			
0:00			
0:00			
0:00 ;			
:			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			

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EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

CONFIDENTIAL PLEASE!

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May 10, 2005

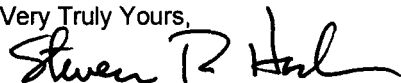
Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Wolverine Federal 8-1 well
Sec 17 T23S R01W
Sevier Co., UT
API# 43-041-30037

Dear Mr. Doucet,

On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed daily drilling reports for the subject well from May 1, 2005 through May 9, 2005. We are presently drilling 12-1/4" hole at 7396', near original projected TD, and have not encountered the Navajo pay interval yet. We respectfully request that the enclosed information remain confidential.

Very Truly Yours,



Steven R. Hash
Consulting Engineer for Wolverine Gas and Oil Company of Utah, LLC

copy without enclosures via email to:

Wolverine Gas & Oil Co of Utah, LLC:	Helene Bardolph
EXACT Engineering, Inc.	well file

RECEIVED

MAY 12 2005

DIV. OF OIL, GAS & MINING

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

Engineering & Supervision

EXACT Engineering, Inc.

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	AP#	SUPERVISOR	
05/09/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
24	DRILLING	7,396	271	23.50	11.5	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.7	30	N/C	2/32	10.0	0.50	5.5	4	7	4/6	7050	5/8/09:00	198,000	2800		326,700

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") of TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION		
6	12.250	SEC	SX20		10683245	24	24	24	7050		346	27.50	12.6						
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	SLOW PUMP		
1	National	6"	8.5	2.93	125	371	145	145	2000	200			1	250	
2	National	6"	8.5	2.93	125	371							2	250	
Both				5.86	250	742	65	75							

DRILL STRING

BOTTOMHOLE ASSEMBLY				LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
12-1/4" BIT				1.50			Twin Creek				Rig No	Unit 111
Directional Assembly				114.54							Cell Narren	918-645-6671
5 - 6 5/8" SWDP				150.00							Last BOP Test	4/23
X-OVER				3.59							Next BOP Test	5/23
19-5"SWDP				577.03							Last Safety Meeting	5/8
JARS				31.80							Last BOP Drill	5/8
4-5"HWDP.				121.00							Last Operate Pipe Rar	5/8
											Last Operate Blind Ra	5/8
Total BHA:				999.46							Last Operate Annular	5/3
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	LAST CASING		NEXT CASING	
177	55	250	125	271	5,736	17	5,753	7"	13-3/8" @ 2053		9-5/8"	

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
7,195	8.60	57.40	6602	2650	1915	1833	1.80	MWD									MWD
7,290	7.40	70.90	6696	2663	1951	1844	2.30	MWD									MWD

DAILY ACTIVITY

FROM	LAST 24 HOURS:		
0:00	10:00	10.00	Drill & survey 7125 to 7273
10:00	10:30	0.50	Rig service
10:30	18:00	7.50	Drill & survey 7273 to 7336
18:00	19:00	1.00	Work on pump
19:00	0:00	5.00	Drill & survey 7336 to 7396
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

CONFIDENTIAL

5474

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR		COUNTY, STATE	SPUD DATE	API#		SUPERVISOR
05/08/05	Wolverine Federal # 8-1	Unit Rig #111		Sevier, UT	4/16/05	43-041-30037		DL NAYLOR
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
23	DRILLING		7,125	132	9.00	14.7	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.7	30	N/C	2/32	10.0	0.50	5.5	4	7	4/6	7050	5/8/09:00	198,000	2800		326,700

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
6	12.250	SEC	SX20		10683245	24	24	24	7050		75	4.00	18.8						
5	12-1/4"	REED	HP-53A	547	EB-8876-L	24	24	24	6264	7050	826	34.50	23.9	Y	40-82	50	4	4	I
													#DIV/0!		122				
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	SLOW PUMP			
													60 spm	80 spm	100 spm	
1	National	6"	8.5	2.93	125	371	145	145	2000	200			1	250		
2	National	6"	8.5	2.93	125	371							2	250		
Both				5.86	250	742	65	75								

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
12-1/4"- BIT		1.50			Twin Creek				Rig No	Unit 111
Directional Assembly		114.54							Cell Norren	918-645-6671
5 - 6 5/8" SWDP		150.00							Last BOP Test	4/23
X-OVER		3.59			BOTTOMS UP TIME	BG GAS	GAS DATA CONN GAS	TRIP GAS	Next BOP Test	5/23
19-5"SWDP		577.03			33				Last Safety Meeting	5/8
JARS		31.80			SHOWS				Last BOP Drill	5/8
					GAS UNITS	FROM	TO	ROP (FT/HR)	Last Operate Pipe Ra	5/8
4-5"HWDP.		121.00							Last Operate Blind Ra	5/8
									Last Operate Annular	5/3
Total BHA:		999.46							LAST CASING	NEXT CASING
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	13-3/8" @ 2053	9-5/8"
177	55	250	125	271	5,736	17	5,763	7"		

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+/-	E+/-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+/-	E+/-	DLS	TOOL
6,901	11.00	39.30	6312	2601	1880	1797	0.60	MWD	7,006	10.30	41.70	6415	2020	1895	1810	0.80	MWD
7,100	9.20	47.00	6508	2636	1906	1821	1.50	MWD									MWD

DAILY ACTIVITY

FROM	TO	LAST 24 HOURS:
0:00	5:00	5.00 Drill & survey 6993 to 7050
5:00	6:00	1.00 Circ/ pump pill
6:00	12:00	6.00 POOH for MWD failure
12:00	14:30	2.50 Change bit mtr. & MWD
14:30	15:00	0.50 Rig service
15:00	18:30	3.50 RIH to 6050
18:30	20:00	1.50 Wash 100' to btm. logging section 6950 to 7050
20:00	0:00	4.00 Drill & survey 7050 to
0:00		
0:00		
0:00		
23:00		
0:00		
0:00		
0:00		
0:00		This am Drilling @ 7220
0:00		
0:00		
0:00		
Daily Total	24.00	

COST DATA

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	APW	SUPERVISOR	
05/07/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
22	DRILLING	6,993	524	20.50	25.6	Araplen	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.7+	32	N/C	2/32	10.5	0.50	6.0	5	9	6/8	6700	5/7/05-9:30	200,000	3000		330,000

BIT DATA

BITS NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION T B G
5	12-1/4"	REED	HP-53A	547	EB-8876-L	24 24 24	6264		729	29.50	24.7	Y	40-82		
											#DIV/OI		122		
											#DIV/OI				

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	125	371	145	145	2000	200			1	250	
2	National	6"	8.5	2.93	125	371							2	250	
Both				5.86	250	742	65	75							

SLOW PUMP

DRILL STRING					GEOLOGIC					GENERAL INFO				
BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.		FORMATION	MD	TVD	LITHOLOGY		RIG INFO				
12-1/4" BIT	1.50				Arapiean					Rig No Unit 111				
Directional Assembly	114.54									Cell Norren 918-645-6671				
5 - 6 5/8" SWDP	150.00									Last BOP Test 4/23				
X-OVER	3.59									Next BOP Test 5/23				
19-5"SWDP	577.03									Last Safety Meeting 5/7				
JARS	31.80									Last BOP Drill 5/1				
4-5"HWDP.	121.00									Last Operate Pipe Ra 5/7				
										Last Operate Blind Ra 5/6				
										Last Operate Annular 5/3				
Total BHA:	999.46									LAST CASING NEXT CASING				
STRING WT.	BHA WT.	PU WT.	SO WT.	ROY. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG		13-3/8" @ 2053 9-5/8"				
177	55	250	125	271	5,736	17	5,753	7"						

SURVEYS

MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
																	MWD
																	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	8:30	8.50	DRILL FROM 6469'-6716'
8:30	9:00	0.50	SERVICE RIG-WORK BOP.
9:00	13:00	4.00	DRILL FROM 6716'-6841'
13:00	14:00	1.00	WASH & REAM FROM 6775'-6841'
14:00	16:00	2.00	SHORT TRIP TEN STANDS & INSTALL 5 TORQUE REDUCESER
16:00	0:00	8.00	DRILL FROM 6841'- 6993'
0:00			
0:00			
0:00			FROM 6469'-6947' DRILLED - 2 TO 3.25 MIN / FOOT
0:00			FROM 6947' -6971' DRILLED - 4 MIN / FOOT
0:00			FROM 6971' -6983' DRILLED - 1.5 TO 2 MIN / FOOT
23:00			FROM 6983 -'7006' STEADY @ 5 MIN / FOOT DEPTH @ 01:00 = 7006'
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

CONFIDENTIAL

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	AP#	SUPERVISOR	
05/05/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
20	Trip out	6,264	213	23.00	9.3	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.7	32	NC	2/32	8.0	0.50	5.2	5	10	7/10	6132	5/5/08:30	200.000	2680		330.000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd) or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
4	12.250	RTC	HP53A	547	PB4765	24	24	24	4850		1414	108.50	13.0	Y	40-82	40-48			
													#VALUE!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	FLOW RATE (GPM)			
													60 spm	80 spm	100 spm	120 spm
1	National	6"	8.5	2.93	125	371	145	145	2000	200			1	250		
2	National	6"	8.5	2.93	125	371							2	250		
Both				5.86	250	742	65	75								

SLOW PUMP

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	FLOW RATE (GPM)			
													60 spm	80 spm	100 spm	120 spm
1	National	6"	8.5	2.93	125	371	145	145	2000	200			1	250		
2	National	6"	8.5	2.93	125	371							2	250		
Both				5.86	250	742	65	75								

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
12-1/4"- BIT		1.50		
Directional Assembly		114.54		
5 - 6 5/8" SWDP		150.00		
X-OVER		3.59		
19-5"SWDP		577.03		
JARS		31.80		
4-5"HWD.P.		121.00		
Total BHA:		999.46		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
160	55	250	125	240

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
BOTTOMS UP TIME	BG GAS	GAS DATA CONN GAS	TRIP GAS
33			
		SHOWS	
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5.736	17	5.753	7"

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Norren	918-645-6671
Last BOP Test	4/23
Next BOP Test	5/23
Last Safety Meeting	5/5
Last BOP Drill	5/1
Last Operate Pipe Ram	5/5
Last Operate Blind Ram	5/1
Last Operate Annular	5/3
LAST CASING	NEXT CASING
13-3/8" @ 2053	9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
6,032	20.80	42.60	5474	2376	1709	1651	0.32	mwd
6,127	20.20	41.00	5563	2409	1734	1673	0.86	mwd

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	10:00	10.00	Drill & survey 6051 TO 6149
10:00	010:30	0.50	Rig service
10:30	23:30	13.00	Drill & survey 6149 to 6264'
23:30	0:00	0.50	Pump pill - trip out

CONFIDENTIAL

This am Drilling @ 6121

Daily Total	24.00
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COST DATA

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
05/04/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
19	DRILLING	6,051	283	23.50	12.0	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.8	32	NC	2/32	10.5	0.75	6.0	6	10	6/9	5900	5/4/08:30	200,000	2800		330,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	S	G
4	12.250	RTC	HP53A	547	PB4765	24	24	24	4850		1201	85.50	14.0	Y	40-82	40-48			
													#VALUE!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

[illegible]

SLOW PUMP

		60 spm	80 spm	100 spm
1	250			
2	250			

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
12-1/4"- BIT		1.50		
Directional Assembly		114.54		
5 - 6 5/8" SWDP		150.00		
X-OVER		3.59		
19-5"SWDP		577.03		
JARS		31.80		
4-5"HWDP.		121.00		
Total BHA:		999.46		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROY. TORQUE
160	55	250	125	240

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
33			
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	7"

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	4/23
Next BOP Test	5/23
Last Safety Meeting	5/4
Last BOP Drill	5/1
Last Operate Pipe Ram	5/3
Last Operate Blind Ram	5/1
Last Operate Annular	5/3
LAST CASING	NEXT CASING
13-3/8" @ 2053	9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
5,843	23.40	41.40	5298	2307	1658	1604	2.70	MWD
6,032	20.80	42.80	5474	2376	1709	1651	0.30	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	13:30	13.50	Drill & survey 5768 to 5960
13:30	14:00	0.50	SERVICE RIG-WORK BOP
14:00	0:00	10.00	Drill & survey 5960 to 6051
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			This am Drilling @ 6121
0:00			
Daily Total	24.00		

CONFIDENTIAL

COST DATA

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#		SUPERVISOR	
05/03/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037		D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
18	DRILLING		5,768	331	23.50	14.1	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.4	30	NC	2/32	10.5	TR	4.8	4	9	5/7	5541	5/3-09:50	192,000	2800		316,800

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
4	12.250	RTC	HP53A	547	PB4765	24	24	24	4850		918	62.00	14.8	Y	40-82	40-48			
													#VALUE!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD				
													60 spm	80 spm	100 spm	
1	National	6"	8.5	2.93	125	371	145	145	2000	200			1	250		
2	National	6"	8.5	2.93	125	371							2	250		
Both				5.86	250	742	65	75								

SLOW PUMP

		60 spm	80 spm	100 spm
	1	250		
	2	250		

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
12-1/4"- BIT		1.50		
Directional Assembly		114.54		
5 - 6 5/8" SWDP		150.00		
X-OVER		3.59		
19-5"SWDP		577.03		
JARS		31.80		
4-5"HWDP.		121.00		
Total BHA:		999.46		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
160	55	250	125	240

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
33			
SHOWS			
GAS UNITS	FROM	TO	ROP (F/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSS
5,736	17	5,753	7"

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	4/23
Next BOP Test	5/23
Last Safety Meeting	5/3
Last BOP Drill	5/1
Last Operate Pipe Ram	5/3
Last Operate Blind Ram	5/1
Last Operate Annular	5/3
LAST CASING	NEXT CASING
13-3/8" @ 2053	9-5/8"

SURVEYS

MD	INCL	AZIMUTH	TVD	SECTION	N+/-	E+/-	DLS	TOOL	MD	INCL	AZIMUTH	TVD	SECTION	N+/-	E+/-	DLS	TOOL
5,465	29.30	41.90	4960	#####	#####	#####	0.86	MWD	5,654	26.90	37.70	5127	#####	#####	#####	1.31	MWD
5,560	28.00	38.90	5044	#####	#####	#####	2.04	MWD	5,748	25.10	36.60	5211	#####	#####	#####	1.98	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	7:00PM	17.00	DRILL FROM 5437'-5645'
7:00PM	17:30	0.50	SERVICE RIG-WORK BOP
17:30	0:00	6.50	DRILL FROM 5645'-5768'
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

CONFIDENTIAL

COST DATA

AFF DHC 6

2 276 570

DAILY MURDER 6

3.510

DAVID BELLING 2005

04000

Engineering & Supervision

EXACT Engineering, Inc.

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#		SUPERVISOR	
05/02/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037		D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
17	Drig		5,437	372	23.50	15.8	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.5+	32	NC	2/32	10.0	0.50	5.0	4	9	5/8	5200	5/2-11:00	190,000	2680		313,500

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd" OF TFA)	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION
4	12.250	RTC	HP53A	547	PB4765	24 24 24	4850		587	38.50	15.2	Y	40-82	40-48	
											#VALUE!				
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	125	371	145	145	2000	200			1	225	
2	National	6"	8.5	2.93	125	371							2	225	
Both				5.86	250	742	65	75							

SLOW PUMP

DRILL STRING					GEOLOGIC					GENERAL INFO				
BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.		FORMATION	MD	TVD	LITHOLOGY		RIG INFO				
12-1/4" BIT	1.50				Arapien					Rig No	Unit 111			
Directional Assembly	114.54									Cell Narren	918-645-6671			
5 - 6 5/8" SWDP	150.00									Last BOP Test	4/23			
X-OVER	3.59									Next BOP Test	5/23			
19-5"SWDP	577.03									Last Safety Meeting	5/2			
JARS	31.80									Last BOP Drill	5/1			
4-5"HWD.	121.00									Last Operate Pipe Rar	5/1			
										Last Operate Blind Ra	5/1			
Total BHA:	999.46									Last Operate Annular	4/27			
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG		LAST CASING	NEXT CASING			
160	55	250	125	240	5,736	17	5,753	7"		13-3/8" @ 2053	9-5/8"			

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
5,087	27.40	45.30	4628	#####	#####	#####	0.57	MWD	5,276	28.40	44.40	4795	#####	#####	#####	0.64	MWD
5,182	27.90	45.10	4712	#####	#####	#####	0.54	MWD	5,371	28.80	43.20	4878	#####	#####	#####	0.74	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	12:30	12.50	DRILL FROM 5065'-5267'
12:30	13:00	0.50	SERVICE RIG-WORK BOP-BOP DRILL
13:00	0:00	11.00	DRILL FROM 5267'-5437'
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

ARE DUC \$ 2,376,570 DAILY MUD \$ 1,088 DAILY DRILLING COST \$ 26,420

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
05/01/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	D. NAYLOR-R. REB.	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
16	Drig	5,065	215	15.00	14.3	Arapien	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.6	30	NC	2/32	10.0	0.50	5.4	6	8	5/8	4852	5/1/09:00	182,000	2680		300,300

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION
4	12.250	RTC	HP53A	547	PB4765	24 24 24	4850		215	15.00	14.3	Y	40-82	40-48	T B G
											#VALUE!				
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	125	371	145	145	1950	150			1	225	
2	National	6"	8.5	2.93	125	371							2	225	
Both				5.86	250	742	65	75							

SLOW PUMP

DRILL STRING					GEOLOGIC					GENERAL INFO				
BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.		FORMATION	MD	TVD	LITHOLOGY		RIG INFO				
12-1/4" - BIT	1.50				Arapiean					Rig No	Unit 111			
Directional Assembly	114.54									Cell Norren	918-645-6671			
5 - 6 5/8" SWDP	150.00									Last BOP Test	4/23			
X-OVER	3.59				GAS DATA					Next BOP Test	5/23			
19-5"SWDP	577.03				BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS		Last Safety Meeting	5/1			
JARS	31.80				33					Last BOP Drill	5/1			
4-5"HWDP	121.00				SHOWS					Last Operate Pipe Ra	5/1			
					GAS UNITS	FROM	TO	ROP (FT/HR)		Last Operate Blind Ra	5/1			
Total BHA:	999.46									Last Operate Annular	4/27			
SYRING WT.	BHA WT.	PU WT.	SO WT.	ROY. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG		LAST CASING	NEXT CASING			
150	55	225	110	260	5,736	17	5,753	7"		13-3/8" @ 2053	9-5/8"			

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
4,614	26.90	43.80	4203	#####	#####	#####	2.20	MWD									MWD
4,993	26.90	44.90	4544	#####	#####	#####	1.20	MWD									MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	2:00	2.00	Change MWD
2:00	5:00	3.00	RIH
5:00	6:00	1.00	Work thru tight spot 3800 to 3900
6:00	7:30	1.50	RIH, Wash 4440 to 4470
7:30	8:00	0.50	Wash & ream 4819 to 4850 3' fill
8:00	15:00	7.00	Drill & survey 4850 to 4938
15:00	16:00	1.00	Work tight hole 4938, wash & ream 4921 to 4938
16:00	0:00	8.00	Drill & survey 4938 to 5065
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

CONFIDENTIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OM B No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		5. Lease Serial No. UTU-73528
2. Name of Operator Wolverine Gas & Oil Co of Utah, LLC		6. If Indian, Allottee or Tribe Name
3a. Address One Riverfront Plaza, 55 Campau NW, Grand Rapids, MI	3b. Phone No. (include area code) 616-458-1150	7. If Unit or CA/Agreement, Name and/or No. Wolverine Fed Exploration Unit
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SHL: 1680' FNL & 2265' FWL of Sec 17, T23S R01W BHL: 450' FSL & 1010' FEL of Sec 8, T23S R01W (original)		8. Well Name and No. Wolverine Federal #8-1
		9. API Well No. 43-041-30037
		10. Field and Pool, or Exploratory Area Exploratory Area
		11. County or Parish, State Sevier Co, UT

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

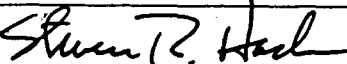
TYPE OF SUBMISSION	TYPE OF ACTION				
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input checked="" type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other	
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompletable horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletable in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Permission was requested and received verbally from Al McKee on May 7, 2005 to amend intermediate casing from 6325 to max 7450'. The Twin Creek Lime projected at 6500' md, which serves as a casing seat, had not yet been encountered. Permission was requested and received verbally from Al McKee on May 9, 2005 to amend the permitted drill depth from 7450' to 12,000'. Drill data supported that the upper structure had been missed and a geologic marker, possibly as deep as 12000' may be needed for full evaluation. Since then the well was logged at 7557' and determined to have encountered Twin Creek Lime. 9-5/8" intermediate casing will be set at approximately 8500' if either 1) pay is encountered or 2) the well is to be deepened further. At some depth above 12000, logs will be run again and decision to plugback/sidetrack or run casing for completion will be made. If casing is run it will be either 7" or 5-1/2' and will be cemented back into the 9-5/8" csg shoe. The present hole inclination is 4.2 degr at 133 degr azimuth - on course with the original plan. The original BHL coordinates were projected at 2037' N & 2014' E. The attached well plan now projects BHL of 1894' N and 1892' E of the SHL.

PLEASE MAINTAIN ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL - thank you

cc: UDOGM

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Steven R Hash - EXACT Engineering Inc		Title Consulting Engineer (918) 599-9400
Signature 		Date 05/12/2005

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by _____	Title _____	Date _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office _____		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

RECEIVED
MAY 16 2005

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS			5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-73528	
			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
			7. UNIT or CA AGREEMENT NAME:	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.				
1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Drilling well</u>			8. WELL NAME and NUMBER: Wolverine Federal 8-1	
2. NAME OF OPERATOR: Wolverine Gas and Oil Company of Utah, LLC			9. API NUMBER: 4304130037	
3. ADDRESS OF OPERATOR: 55 Campau, NW CITY Grand Rapids STATE MI ZIP 49203		PHONE NUMBER: (616) 458-1150	10. FIELD AND POOL, OR WILDCAT: Exploratory Area	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1680' FNL & 2265' FWL			COUNTY: Sevier	
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENW 17 23S 1W			STATE: UTAH	

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>5/16/2005</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input checked="" type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>sidetrack new BHL</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE KEEP THE ENCLOSED INFORMATION CONFIDENTIAL - THANK YOU

Upon plugging back the subject well due to dryhole (see BLM Subsequent Report dated 5/16/2005 - accepted verbally by UDOGM) permission was requested and verbally received by Mr Doucet (UDOGM) on May 13 to utilize this wellbore from which to sidetrack to a new BHL, (that being 1038' N and 418' E of the SHL) at a Navajo target depth of 5933' TVD (-180ss). The kickoff point is projected at approximately 2500' md below 13-3/8" csg. See attached directional plat. This BHL approximates the BHL as presently authorized in an APD for the Wolverine Kings Meadow Ranches 17-6 well. For this reason it is requested to temporarily "suspend" the permitted authority of the Kings Meadow Ranches 17-6 well in favor of the proposed sidetrack well. Depending upon the outcome of the sidetrack well, it is understood the suspension may either be made permanent or removed. It is also requested to change the name of the present Wolverine Federal 8-1, for purposes of this sidetrack, to the Kings Meadow Ranches 17-6 (WF 8-1). Wolverine is the mineral lessee of all minerals within 460' of the entire proposed wellbore.

*Approval was for a BHL of 660' FNL and 1425' FWL
(1022' N and 83' W of the SHL) DKD*

attached: directional plan
xc: BLM

RECEIVED
MAY 20 2005
DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) <u>Steven R. Hash - EXACT Engineering, Inc</u>	TITLE <u>Consulting Engineer for Wolverine Gas & Oil</u>
SIGNATURE <u><i>Steven R. Hash</i></u>	DATE <u>5/18/2005</u>

(This space for State use only)

CONFIDENTIAL

WOLVERINE GAS & OIL CO. OF UTAH
Kings Meadow Ranches 17-6 (WFB-1)
Sevier County, Utah



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	2534.00	28.00	41.60	2403.88	511.63	496.92	0.00	0.00	97.23	
2	3635.22	7.71	322.39	3456.00	768.39	625.97	2.50	-163.44	220.11	
3	6134.80	7.71	322.39	5933.00	1033.97	421.40	0.00	0.00	555.35	NVJ01
4	6844.21	7.71	322.39	6636.00	1109.35	363.34	0.00	0.00	650.49	

SITE DETAILS

Pad A-2
T23S R01W Sevier County, Utah
NW/4 SE/4 Sec 17

Water Depth: 0.00
Positional Uncertainty: 0.00
Convergence: -0.28

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Kings Meadow Ranches 17-6 (WFB-1)	00	48.00	6733931.77	1516740.09	38°48'19.460N	111°56'02.273W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Tie On	2534.00	511.63	496.92	Point
NVJ01	5933.00	1038.00	418.00	Point

Target NVJ01 is located 642' South of North Section Line & 43' E of 1/2 Section Line.

FIELD DETAILS

Sevier County, Utah

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: Utah, Central Zone
Magnetic Model: igrf2005

System Datum: Mean Sea Level
Local North: True North

Azimuths to True North
Magnetic North: 12.55°

Magnetic Field
Strength: 51942nT
Dip Angle: 64.52°
Date: 5/19/2005
Model: igrf2005

Total Correction: 12.55°

CASING DETAILS

No.	TVD	MD	Name	Size
1	119.98	120.00	20"	20.000
2	1978.59	2053.00	13 3/8"	13.375
3	5750.00	5950.13	9 5/8"	9.625
4	6636.00	6844.21	7"	7.000

FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	5602.00	5800.78	Twin Creek
2	5933.00	6134.80	NVJ01
3	6336.00	6541.48	OWC

True Vertical Depth [1000ft/in]



South(-)/North(+) [1000ft/in]

West(-)/East(+) [1000ft/in]

Vertical Section at 322.00° [1000ft/in]

Created By: Scott Wallace 05/19/05

Planning Report

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
120.00	1.87	322.50	119.98	1.56	-1.19	1.96	0.00	0.00	0.00	0.00
2053.00	24.72	41.61	1978.59	348.88	342.64	63.97	1.26	1.18	4.09	83.16
2534.00	28.00	41.60	2403.88	511.63	496.92	97.23	0.68	0.68	0.00	-0.10
2600.00	26.42	40.54	2462.58	534.37	516.75	102.95	2.50	-2.39	-1.60	-163.44
2679.12	24.54	39.11	2534.00	560.50	538.56	110.11	2.50	-2.38	-1.81	-162.50
2700.00	24.05	38.70	2553.03	567.19	543.96	112.05	2.50	-2.36	-1.98	-161.21
2800.00	21.70	36.48	2645.16	597.96	567.69	121.69	2.50	-2.35	-2.22	-160.83
2900.00	19.39	33.75	2738.80	626.63	587.91	131.84	2.50	-2.31	-2.72	-158.79
3000.00	17.13	30.33	2833.76	653.15	604.58	142.48	2.50	-2.26	-3.42	-156.23
3100.00	14.95	25.93	2929.86	677.47	617.66	153.58	2.50	-2.19	-4.41	-152.98
3200.00	12.87	20.10	3026.93	699.53	627.12	165.14	2.50	-2.07	-5.83	-148.75
3300.00	10.98	12.19	3124.77	719.30	632.96	177.13	2.50	-1.90	-7.91	-143.09
3400.00	9.36	1.33	3223.21	736.74	635.16	189.51	2.50	-1.61	-10.86	-135.35
3500.00	8.20	346.75	3322.04	751.82	633.71	202.28	2.50	-1.16	-14.57	-124.65
3600.00	7.70	328.97	3421.10	764.50	628.63	215.41	2.50	-0.50	-17.79	-110.25
3635.22	7.71	322.39	3456.00	768.39	625.97	220.11	2.50	0.03	-18.66	-92.63

Weatherford International

Planning Report

Company: Wolverine Gas & Oil Co of Utah
 Field: Sevier County, Utah
 Site: Pad A-2
 Well: Kings Meadow Ranches 17-6 (B-1)
 Wellpath: 1

Date: 5/19/2005 Time: 15:12:38 Page: 2
 Co-ordinate(NE) Reference: Well: Kings Meadow Ranches 17-6 (B-1)
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,322.00Azi)
 Plan: KMR 17-6

Section 2 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
3700.00	7.71	322.39	3520.20	775.27	620.67	228.80	0.00	0.00	0.00	0.00
3800.00	7.71	322.39	3619.29	785.90	612.48	242.21	0.00	0.00	0.00	0.00
3900.00	7.71	322.39	3718.39	796.52	604.30	255.63	0.00	0.00	0.00	0.00
4000.00	7.71	322.39	3817.49	807.15	596.12	269.04	0.00	0.00	0.00	0.00
4100.00	7.71	322.39	3916.58	817.77	587.93	282.45	0.00	0.00	0.00	0.00
4200.00	7.71	322.39	4015.68	828.40	579.75	295.86	0.00	0.00	0.00	0.00
4300.00	7.71	322.39	4114.78	839.02	571.56	309.27	0.00	0.00	0.00	0.00
4400.00	7.71	322.39	4213.87	849.65	563.38	322.68	0.00	0.00	0.00	0.00
4500.00	7.71	322.39	4312.97	860.27	555.19	336.09	0.00	0.00	0.00	0.00
4600.00	7.71	322.39	4412.07	870.90	547.01	349.51	0.00	0.00	0.00	0.00
4700.00	7.71	322.39	4511.16	881.52	538.82	362.92	0.00	0.00	0.00	0.00
4800.00	7.71	322.39	4610.26	892.15	530.64	376.33	0.00	0.00	0.00	0.00
4900.00	7.71	322.39	4709.35	902.77	522.46	389.74	0.00	0.00	0.00	0.00
5000.00	7.71	322.39	4808.45	913.40	514.27	403.15	0.00	0.00	0.00	0.00
5100.00	7.71	322.39	4907.55	924.02	506.09	416.56	0.00	0.00	0.00	0.00
5200.00	7.71	322.39	5006.64	934.65	497.90	429.97	0.00	0.00	0.00	0.00
5300.00	7.71	322.39	5105.74	945.28	489.72	443.39	0.00	0.00	0.00	0.00
5400.00	7.71	322.39	5204.84	955.90	481.53	456.80	0.00	0.00	0.00	0.00
5500.00	7.71	322.39	5303.93	966.53	473.35	470.21	0.00	0.00	0.00	0.00
5600.00	7.71	322.39	5403.03	977.15	465.17	483.62	0.00	0.00	0.00	0.00
5700.00	7.71	322.39	5502.13	987.78	456.98	497.03	0.00	0.00	0.00	0.00
5800.00	7.71	322.39	5601.22	998.40	448.80	510.44	0.00	0.00	0.00	0.00
5800.78	7.71	322.39	5602.00	998.48	448.73	510.55	0.00	0.00	0.00	0.00
5900.00	7.71	322.39	5700.32	1009.03	440.61	523.85	0.00	0.00	0.00	0.00
5950.13	7.71	322.39	5750.00	1014.35	436.51	530.58	0.00	0.00	0.00	0.00
6000.00	7.71	322.39	5799.42	1019.65	432.43	537.27	0.00	0.00	0.00	0.00
6100.00	7.71	322.39	5898.51	1030.28	424.24	550.68	0.00	0.00	0.00	0.00
6134.80	7.71	322.39	5933.00	1033.97	421.40	555.35	0.00	0.00	0.00	0.00

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
6200.00	7.71	322.39	5997.61	1040.90	416.06	564.09	0.00	0.00	0.00	0.00
6300.00	7.71	322.39	6096.71	1051.53	407.88	577.50	0.00	0.00	0.00	0.00
6400.00	7.71	322.39	6195.80	1062.15	399.69	590.91	0.00	0.00	0.00	0.00
6500.00	7.71	322.39	6294.90	1072.78	391.51	604.32	0.00	0.00	0.00	0.00
6541.48	7.71	322.39	6336.00	1077.18	388.11	609.89	0.00	0.00	0.00	0.00
6600.00	7.71	322.39	6394.00	1083.40	383.32	617.74	0.00	0.00	0.00	0.00
6700.00	7.71	322.39	6493.09	1094.03	375.14	631.15	0.00	0.00	0.00	0.00
6800.00	7.71	322.39	6592.19	1104.65	366.95	644.56	0.00	0.00	0.00	0.00
6844.21	7.71	322.39	6636.00	1109.35	363.34	650.49	0.00	0.00	0.00	0.00

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
120.00	1.87	322.50	119.98	1.56	-1.19	1.96	0.00	0.00	0.00	20"
2053.00	24.72	41.61	1978.59	348.88	342.64	63.97	1.26	1.18	4.09	13 3/8"
2534.00	28.00	41.60	2403.88	511.63	496.92	97.23	0.68	0.68	0.00	MWD
2600.00	26.42	40.54	2462.58	534.37	516.75	102.95	2.50	-2.39	-1.60	MWD
2679.12	24.54	39.11	2534.00	560.50	538.56	110.11	2.50	-2.38	-1.81	Tie On
2700.00	24.05	38.70	2553.03	567.19	543.96	112.05	2.50	-2.36	-1.98	MWD
2800.00	21.70	36.48	2645.16	597.96	567.69	121.69	2.50	-2.35	-2.22	MWD
2900.00	19.39	33.75	2738.80	626.63	587.91	131.84	2.50	-2.31	-2.72	MWD
3000.00	17.13	30.33	2833.76	653.15	604.58	142.48	2.50	-2.26	-3.42	MWD
3100.00	14.95	25.93	2929.86	677.47	617.66	153.58	2.50	-2.19	-4.41	MWD
3200.00	12.87	20.10	3026.93	699.53	627.12	165.14	2.50	-2.07	-5.83	MWD
3300.00	10.98	12.19	3124.77	719.30	632.96	177.13	2.50	-1.90	-7.91	MWD
3400.00	9.36	1.33	3223.21	736.74	635.16	189.51	2.50	-1.61	-10.86	MWD
3500.00	8.20	346.75	3322.04	751.82	633.71	202.28	2.50	-1.16	-14.57	MWD
3600.00	7.70	328.97	3421.10	764.50	628.63	215.41	2.50	-0.50	-17.79	MWD

Weatherford International

Planning Report

Company: Wolverine Gas & Oil Co of Utah
 Field: Sevier County, Utah
 Site: Pad A-2
 Well: Kings Meadow Ranches 17-6 (8-1)
 Wellpath: 1

Date: 5/19/2005 Time: 15:12:38 Page: 3
 Co-ordinate(N/E) Reference: Well: Kings Meadow Ranches 17-6 (8-1)
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,322.00Azi)
 Plan: KMR 17-6

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
3635.22	7.71	322.39	3456.00	768.39	625.97	220.11	2.50	0.03	-18.66	MWD
3700.00	7.71	322.39	3520.20	775.27	620.67	228.80	0.00	0.00	0.00	MWD
3800.00	7.71	322.39	3619.29	785.90	612.48	242.21	0.00	0.00	0.00	MWD
3900.00	7.71	322.39	3718.39	796.52	604.30	255.63	0.00	0.00	0.00	MWD
4000.00	7.71	322.39	3817.49	807.15	596.12	269.04	0.00	0.00	0.00	MWD
4100.00	7.71	322.39	3916.58	817.77	587.93	282.45	0.00	0.00	0.00	MWD
4200.00	7.71	322.39	4015.68	828.40	579.75	295.86	0.00	0.00	0.00	MWD
4300.00	7.71	322.39	4114.78	839.02	571.56	309.27	0.00	0.00	0.00	MWD
4400.00	7.71	322.39	4213.87	849.65	563.38	322.68	0.00	0.00	0.00	MWD
4500.00	7.71	322.39	4312.97	860.27	555.19	336.09	0.00	0.00	0.00	MWD
4600.00	7.71	322.39	4412.07	870.90	547.01	349.51	0.00	0.00	0.00	MWD
4700.00	7.71	322.39	4511.16	881.52	538.82	362.92	0.00	0.00	0.00	MWD
4800.00	7.71	322.39	4610.26	892.15	530.64	376.33	0.00	0.00	0.00	MWD
4900.00	7.71	322.39	4709.35	902.77	522.46	389.74	0.00	0.00	0.00	MWD
5000.00	7.71	322.39	4808.45	913.40	514.27	403.15	0.00	0.00	0.00	MWD
5100.00	7.71	322.39	4907.55	924.02	506.09	416.56	0.00	0.00	0.00	MWD
5200.00	7.71	322.39	5006.64	934.65	497.90	429.97	0.00	0.00	0.00	MWD
5300.00	7.71	322.39	5105.74	945.28	489.72	443.39	0.00	0.00	0.00	MWD
5400.00	7.71	322.39	5204.84	955.90	481.53	456.80	0.00	0.00	0.00	MWD
5500.00	7.71	322.39	5303.93	966.53	473.35	470.21	0.00	0.00	0.00	MWD
5600.00	7.71	322.39	5403.03	977.15	465.17	483.62	0.00	0.00	0.00	MWD
5700.00	7.71	322.39	5502.13	987.78	456.98	497.03	0.00	0.00	0.00	MWD
5800.00	7.71	322.39	5601.22	998.40	448.80	510.44	0.00	0.00	0.00	MWD
5800.78	7.71	322.39	5602.00	998.48	448.73	510.55	0.00	0.00	0.00	Twin Creek
5900.00	7.71	322.39	5700.32	1009.03	440.61	523.85	0.00	0.00	0.00	MWD
5950.13	7.71	322.39	5750.00	1014.35	436.51	530.58	0.00	0.00	0.00	9 5/8"
6000.00	7.71	322.39	5799.42	1019.65	432.43	537.27	0.00	0.00	0.00	MWD
6100.00	7.71	322.39	5898.51	1030.28	424.24	550.68	0.00	0.00	0.00	MWD
6134.80	7.71	322.39	5933.00	1033.97	421.40	555.35	0.00	0.00	0.00	NVJ01
6200.00	7.71	322.39	5997.61	1040.90	416.06	564.09	0.00	0.00	0.00	MWD
6300.00	7.71	322.39	6096.71	1051.53	407.88	577.50	0.00	0.00	0.00	MWD
6400.00	7.71	322.39	6195.80	1062.15	399.69	590.91	0.00	0.00	0.00	MWD
6500.00	7.71	322.39	6294.90	1072.78	391.51	604.32	0.00	0.00	0.00	MWD
6541.48	7.71	322.39	6336.00	1077.18	388.11	609.89	0.00	0.00	0.00	OWC
6600.00	7.71	322.39	6394.00	1083.40	383.32	617.74	0.00	0.00	0.00	MWD
6700.00	7.71	322.39	6493.09	1094.03	375.14	631.15	0.00	0.00	0.00	MWD
6800.00	7.71	322.39	6592.19	1104.65	366.95	644.56	0.00	0.00	0.00	MWD
6844.21	7.71	322.39	6636.00	1109.35	363.34	650.49	0.00	0.00	0.00	7"

Targets

Name	Description		TVD ft	+N/-S ft	+E/-W ft	Map Northing	Map Easting	← Latitude →			← Longitude →				
	Dip.	Dir.						Deg	Min	Sec	Deg	Min	Sec		
Tie On			2534.00	511.63	496.92	6734440.98	1517239.49	38	48	24.517	N	111	55	55.996	W
-Plan out by 64.21 at			2534.00	560.50	538.56	6734489.65	1517281.37	38	48	25.000	N	111	55	55.470	W
NVJ01			5933.00	1038.00	418.00	6734967.73	1517163.12	38	48	29.719	N	111	55	56.993	W
-Plan out by 5.27 at			5933.00	1033.97	421.40	6734963.69	1517166.50	38	48	29.679	N	111	55	56.950	W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
120.00	119.98	20.000	26.000	20"
2053.00	1978.59	13.375	17.500	13 3/8"
5950.13	5750.00	9.625	12.250	9 5/8"

Weatherford International

Planning Report

Company: Wolverine Gas & Oil Co of Utah
 Field: Sevier County, Utah
 Site: Pad A-2
 Well: Kings Meadow Ranches 17-6 (8-1)
 Wellpath: 1

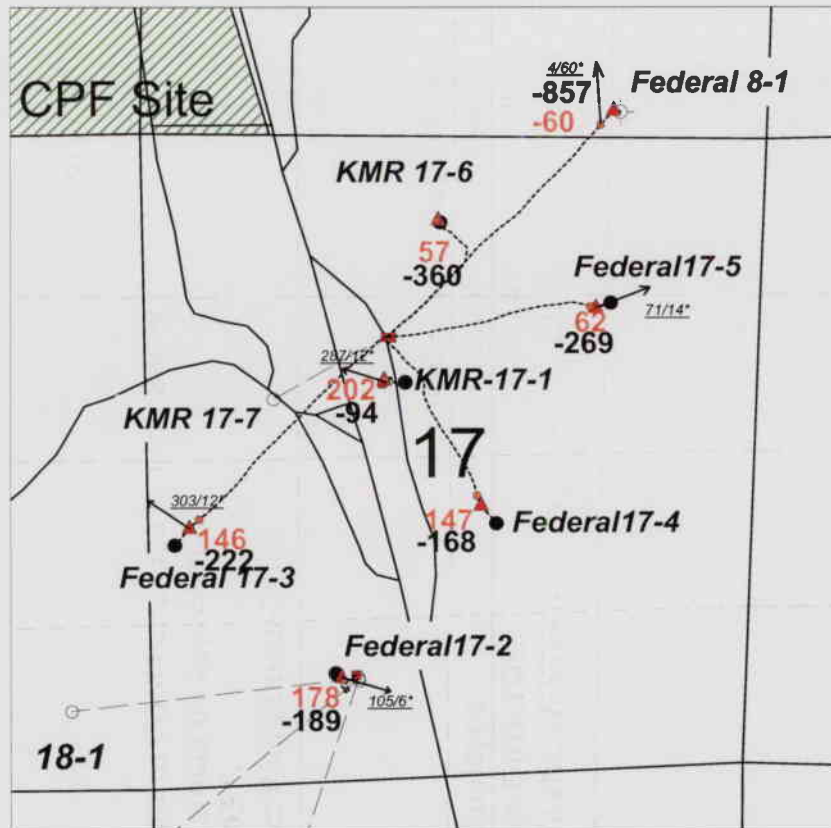
Date: 5/19/2005 Time: 15:12:38 Page: 4
 Co-ordinate(NE) Reference: Well: Kings Meadow Ranches 17-6 (8-1)
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,322.00Azi)
 Plan: KMR 17-6

Casing Points

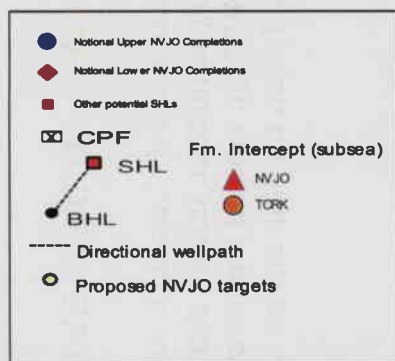
MD ft	TVD ft	Diameter in	Hole Size in	Name
6844.21	6636.00	7.000	8.500	7"

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
5800.78	5602.00	Twin Creek		0.00	0.00
6134.80	5933.00	NVJ01		0.00	0.00
6541.48	6336.00	OWC		0.00	0.00



1 inch = 1000 feet



	Wolverine Gas & Oil Company of Utah, LLC (Operator) <i>Energy Exploration in Partnership with the Environment</i> ONE HIVEPOINT PLACE SLC, UT 84143-1100 GRAND RAPIDS, MI 49503-2010 (810) 450-1100
	Proposed Well Pattern Section 17, T23S-R1W Sevier County, UT
Date: 27 May 2003	GPO: (H) 00000001 0000

From: "Steven R Hash" <stevehash@exactengineering.com>
To: "Dustin Doucet" <dustindoucet@utah.gov>, "Al McKee" <al_mckee@blm.gov>
Date: 5/27/2005 2:51:21 PM
Subject: Kings Meadow Ranches 17-6 (WF 8-1) lease line issue

Gentlemen,

Attached please find our plat detailing the actual coordinates of the top of the Navajo (based on drilling surveys and mudlogger top data) in the subject well. This supports that the producing formation lies entirely within the NW/4 of Sec 17. The actual footages are:

NVJO top (drilled top - later refined by logs): 121' FEL (qtr sec line) & 698' FNL

Bottom Hole (TD): 106' FEL (qtr sec line) & 718' FNL

I'll call soon to discuss details. Oh...by the way....Wolverine now wants to drill one more well from A-2 pad and name it "Kings Meadow Ranches 17-7". Great timing huh?

Steve
Steven R. Hash
EXACT Engineering, Inc.
415 S. Boston, Suite 734
Tulsa, OK 74103
ofc (918) 599-9400 ofc fax (918) 599-9401
direct (918) 599-9801 mobil fax (801) 640-7470
stevehash@exactengineering.com
www.exactengineering.com
Petroleum Engineering Consulting and Field Services

From: "Steven R Hash" <stevehash@exactengineering.com>
To: "Dustin Doucet" <dustindoucet@utah.gov>, "Al McKee" <al_mckee@blm.gov>
Date: 5/30/2005 10:12:56 PM
Subject: Kings Meadow Ranches 17-6 (WF 8-1)

Gentlemen,

FYI, attached is a copy of the cover letter that will accompany (via express mail Tuesday, May 31) those items mentioned in my previous email of Friday, May 27. Please delete the previous amended APD draft sent by email on Friday in favor of the one attached here to show "re-entry" in lieu of "drill". Thank you.

Steve

Steven R. Hash

EXACT Engineering, Inc.

415 S. Boston, Suite 734

Tulsa, OK 74103

ofc (918) 599-9400 ofc fax (918) 599-9401

direct (918) 599-9801 mobil fax (801) 640-7470

stevehash@exactengineering.com <mailto:stevehash@exactengineering.com>

www.exactengineering.com <http://www.exactengineering.com>

Petroleum Engineering Consulting and Field Services

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CC: "Edward Higuera" <EHiguera@wolvgas.com>

From: Earlene Russell
To: Dan Triezenberg
Date: 5/31/2005 1:04:56 PM
Subject: Re: Bond information for the 17-6

Dan,
I have attached bond #19-10775-4 to API 43-41-30037 (Kings Meadow Ranches 17-6 (8-1))

Earlene Russell

>>> "Dan Triezenberg" <dtriezenberg@wolvgas.com> 05/31/05 10:26 AM >>>
Earlene,

Please change the documentation on the Well Bond for the Wolverine Federal 8-1 (API #43-041-30037) to the Kings Meadow Ranch 17-6 per our conversation from this morning. The reason for the change is due to the original 8-1 was drilled but did not encounter Navajo at TD, so it has been plugged. The top portion of this well bore was used for a new well which will TD in section 17 and therefore the new well bore has been named KMR 17-6.

Thank you for your understanding.

Dan Triezenberg

CC: Dustin Doucet

From: "Steven R Hash" <stevehash@exactengineering.com>
To: "Al_McKee@blm.gov" <Al_McKee@blm.gov>, "Dustin Doucet" <dustindoucet@utah.gov>
Date: 6/5/2005 11:58:25 AM
Subject: KMR 17-6 (WF 8-1) lease line issue - PLAT & explanation

Gentlemen,

Please find attached, as previously promised, a plat prepared by Wolverine detailing the 1) original proposed BHL of the Kings Meadow Ranches 17-6 (KMR 17-6) well 2) the proposed BHL, later submitted via sundry notice, for the sidetrack of the Wolverine Federal 8-1 (WF 8-1) which was eventually named KMR 17-6 (WF 8-1) and 3) actual BHL of the Navajo formation top as drilled in the KMR 17-6 (WF 8-1).

A recap of recent developments is as follows: Upon determining that the WF 8-1 was non-productive on May 13, 2005, we subsequently requested, and received, BLM & UDOGM verbal permission to plugback the WF 8-1. A sidetrack, utilizing the upper 2500' of the WF 8-1 wellbore to an approved BHL for the KMR 17-6 well, which had been planned but not yet drilled, was proposed. It was believed during initial sidetrack planning stages, that the sidetrack wellbore would not enter federal mineral space and therefore UDOGM verbal approval was requested and received for a sidetrack well, KMR 17-6 (WF 8-1), to the then intended and previously approved KMR 17-6 BHL, on fee minerals. During the ensuing process of staff evaluation of final open hole logs of the WF 8-1, which included a geologic re-interpretation based on the new data, a somewhat different ideal BHL for the sidetrack well was identified. It was at that time that our oversight occurred. I failed to recognize the difference in the bottomhole locations of this final proposal and that of the KMR 17-6 which I had verbally represented just days earlier. This section, section 17, is an irregular section and the difficulty of readily calculating accurate distances from interior locations to section boundaries exist. I incorrectly assumed that the location provided to me and submitted in our subsequent sundry notice was much closer to the verbally proposed KMR 17-6 than it actually became. These differences are shown on the attached plat. This oversight, and the corresponding difference in approved and actual BHL created an exception to UDOGM rule 649-3-2. We are prepared to submit a written request for this exception but will await your review of this issue for instructions for further handling. I trust this adequately explains the situation surrounding this discrepancy and we will be certain to recognize future potential rule 649-3-2 infringements.

Thank you,

Steve

Steven R. Hash

EXACT Engineering, Inc.

415 S. Boston, Suite 734

Tulsa, OK 74103

ofc (918) 599-9400 ofc fax (918) 599-9401

direct (918) 599-9801 mobil fax (801) 640-7470

stevehash@exactengineering.com

www.exactengineering.com

Petroleum Engineering Consulting and Field Services

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-----Original Message-----

From: "Al_McKee@blm.gov" <Al_McKee@blm.gov>

Sent: 5/31/2005 11:58 AM

To: "stevehash@exactengineering.com" <stevehash@exactengineering.com>
Cc: "Dustin Doucet" <dustindoucet@utah.gov>
Subject: Re: Kings Meadow Ranches 17-6 (WF 8-1) lease line issue

Steve -

I'm obviously confused. The oral to revise the wellpath was based on the approved BHL for the original 17-6 (I never saw that document, but I believe it to be somewhere around the center of the NENW). However the Sundry to revise has a wellpath BHL far to the east of the 17-6 BHL. Regardless, 121' FEL (qtr sec line) would still not meet State location requirements.

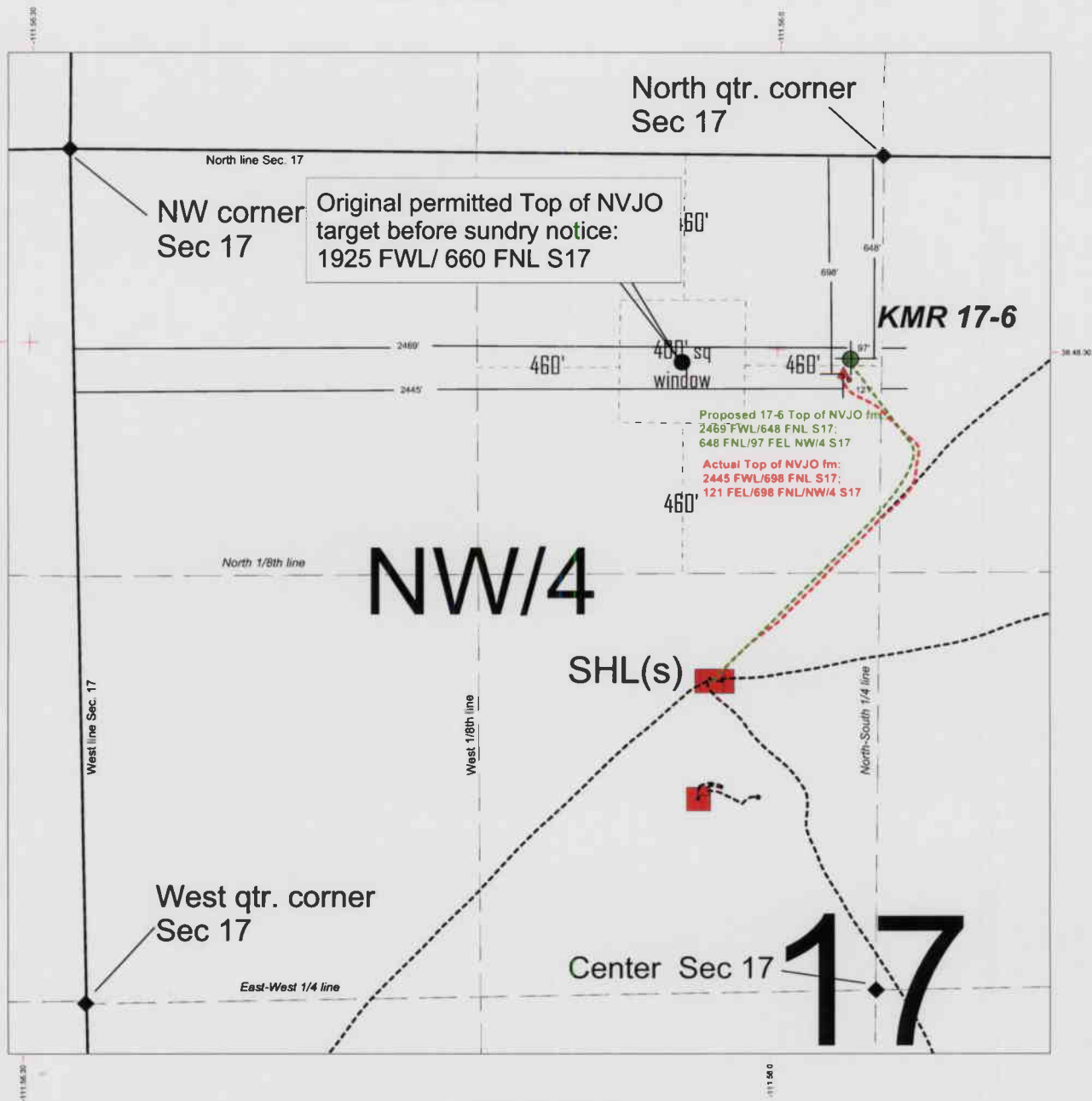
Due to the irregular section, I cannot rectify the differences in BHL. Once SHL lat & long is verified, the actual MWD survey can be tied to it, and then overlaid on the digitized land survey.

As in the past, if a portion of this wellbore entered federal mineral space on its way to the fee minerals, that would require Federal authorization. If a portion of the producing zone is within the SE 1/4 of section 17, then there would remain Federal authority over the wellbore.

I will need daily drilling reports and the actual directional survey for this wellpath to resolve this issue.

-Al McKee
801-539-4045

CC: "John Vrona" <jvrona@wolvgas.com>, "Edward Higuera" <EHiguera@wolvgas.com>, "Sid Jansma" <sjansmajr@wolvgas.com>, "Richard Moritz" <rmoritz@wolvgas.com>



1 inch = 500 feet



- ▲ NVJO Target Actual
- NVJO Target Proposed

SHL

Directional wellpath

BHL

	Wolverine Gas & Oil Company of Utah, LLC (Operator) <i>Energy Exploration in Partnership with the Environment</i> ONE RIVERFRONT PLAZA 55 CAMP AU. N.W. GRAND RAPIDS, MI 49503 2618 (616) 458-1150
	KMR 17-6 Well Location NW/4 Section 17, T23S-R1W Sevier County, UT
Date: 3 June 2005	gmp: ml 17-6

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other

CONFIDENTIAL

2. Name of Operator **Wolverine Gas & Oil Co of Utah, LLC**

3a. Address
One Riverfront Plaza, 55 Campau NW, Grand Rapids, MI

3b. Phone No. (include area code)
616-458-1150

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**SHL: 1680' FNL & 2265' FWL of Sec 17, T23S R01W
BHL: 450' FSL & 1010' FEL of Sec 8, T23S R01W (original)**

5. Lease Serial No.
UTU-73528

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
Wolverine Fed Exploration Unit

8. Well Name and No.
Wolverine Federal #8-1

9. API Well No.
43-041-30037

10. Field and Pool, or Exploratory Area
Exploratory Area

11. County or Parish, State
Sevier Co, UT

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input checked="" type="checkbox"/> Temporarily Abandon	0-2500' used for new well - Kings Meadow
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	Ranches 17-6 (WF8-1)

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Permission was requested and received verbally from Al McKee (BLM-SLC) on May 13, 2005 to plug and abandon the subject well at total depth of 7824' due to dryhole and to use the upper portion of this wellbore above 2500' for a new well - Kings Meadow Ranches 17-6 (WF 8-1). Please refer to the accompanying Sundry Notice for the sidetrack notice details of this new well. Cement plugs were placed as instructed by Mr McKee; Plug #1 from 7200' to 6900' min across top of Twin Creek lime at 6986' w 250 sx 50:50 POZ w/ 2% gel & 0.1% HR5 @ 14.2 ppg, 1.22 yield; Plug #2 from 5100' to 4900' min as stabilizer plug w 150 sx 50:50 POZ w/ 2% gel & 0.1% HR5 @ 14.2 ppg, 1.22 yield; Plug #3 from 3000' to 2500' min as sidetrack plug w/ 515 sx Prem G w/ .75% CFR3 @ 17.0 ppg, 0.99 yield. 10.6 ppg mud was placed between all plugs. Please refer to the cementing company report attached. Please note that new well will carry API# 43-041-30037-0001

PLEASE MAINTAIN ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL - thank you

xc: UDOGM

RECEIVED

MAY 20 2005

DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Steven R Hash - EXACT Engineering Inc

Title **Consulting Engineer (918) 599-9400**

Signature

Steven R. Hash

Date

05/16/2005

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office



Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

CONFIDENTIAL

Engineering & Supervision				EXACT Engineering, Inc.				(918) 599-9400											
Operator: Wolverine G&O Co of Utah, LLC												DAILY DRILLING REPORT				24 hrs - midnight to midnight			
DATE 05/14/05		WELL Wolverine Federal # 8-1		CONTRACTOR Unit Rig #111		COUNTY, STATE Sevier, UT		SPUD DATE 4/16/05		API# 43-041-30037		SUPERVISOR DL NAYLOR							
DAYS F/ SPUD 29		PRESENT OPERATIONS @ MIDNIGHT Plugged back - WOC		TOTAL DEPTH 2,500		PROGRESS		DRILLING TIME		ROP #VALUE!		FORMATION		AUTH. DEPTH 12000					
MUD DATA																			
WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM				
10.5	32	N/C	2/32	10.0	0.50	4.3	5	10	6/9	7817	5/13/8:30	200,000	2150		330,000				
BIT DATA																			
BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd) or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION T B G				
											#DIV/0!	80	20-40	48	4 4 1				
											#DIV/0!								
											#DIV/0!								
											#DIV/0!								
HYDRAULICS																			
PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AVDP	AVDC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	SLOW PUMP						
													60 spm	80 spm	100 spm				
1	National	6"	8.5	2.93									1	250					
2	National	6"	8.5	2.93									2	250					
Both				5.86															
DRILL STRING																			
BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION		MD	TVD	LITHOLOGY		GENERAL INFO								
					Twin Creek		6,986	6,396			RIG INFO								
											Rig No Unit 111								
											Cell Narren 918-645-6671								
											Last BOP Test 4/23								
											Next BOP Test 5/23								
											Last Safety Meeting 5/12								
											Last BOP Drill 5/12								
											Last Operate Pipe Ra 5/10								
											Last Operate Blind Ra 5/10								
											Last Operate Annular 5/3								
Total BHA:		0.00									LAST CASING NEXT CASING								
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	13-3/8" @ 2053 9-5/8"										
					5,736	17	5,753	7"											
SURVEYS																			
MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL		
								MWD									MWD		
								MWD									MWD		
DAILY ACTIVITY																			
FROM			LAST 24 HOURS:																
0:00	2:00	2.00	Rig up & set 1st. Plug 7200 to 6900, 200 sks. 50/50 poz. 2% gel .1% HR-5, 14.2 PPG.																
2:00	3:30	1.50	POOH 5stds. Kelly up clear pipe, POOH to 5100																
3:30	4:00	0.50	Lay 2nd. Cement plug 5100 to 4900, 150 sks. 50/50 poz. 2% gel .1% HR-5 14.2 PPG																
4:00	7:30	3.50	POOH to 3060																
7:30	8:00	0.50	Lay 3rd. Plug 3060 to 2500 515 sks. Class G Wl.75% CFR3 17 PPG																
8:00	0:00	16.00	WOC, LDDP, Prep to sidetrack well to 17-6 BHL																
0:00																			
0:00																			
0:00			FINAL REPORT FOR Wolverine Federal 8-1 well; will start new well KMR 17-6 (WF 8-1) in this wellbore at ~2500 ft																
0:00																			
0:00			See KMR 17-6 (WF 8-1) file for continuation																
23:00																			
0:00																			
0:00																			
0:00																			
0:00																			
0:00																			
0:00																			
Daily Total	24.00																		
COST DATA																			
AFE DHC \$		2,276,579		DAILY MUD \$		550		DAILY DRILLING COST \$		77,545									
AFE CWC \$		2,967,353		CUM MUD \$		54,695		CUM DRILLING COST \$		1,325,821									

CONFIDENTIAL

HALLIBURTON				JOB SUMMARY				SALES ORDER NUMBER 3692298		TICKET DATE 14-May-05	
REGION NORTH AMERICA				COUNTRY ROCKY MOUNTAIN				SDA / STATE UTAH		COUNTY SEVIER	
WELL ID / SPT # 217923				H.E.S. EMPLOYEE NAME NATHAN MILLEN				PSL DEPARTMENT ZONAL ISOLATION			
LOCATION PRICE UT				COMPANY WOLVERINE OIL & GAS CORP.				CUSTOMER REP / PHONE ROB KRUGER			
WELL LOCATION				WELL TYPE OIL				APIUM #			
HEAD NAME				DEPARTMENT ZONAL ISOLATION 10003				CAP NUMBER 7528		WOLVERINE FEDERAL 8-1	
WELL NO. 8-1				SEC / TWP / RNG							
H.E.S. EMP NAME / EMP # / (EXPOSURE HOURS)				H.E.S.				H.E.S.			
NATHAN MILLEN 217923				Terri Paulk 313002							
JOHN GODIN 178572				Tim Geler 317026							
JOHN SNOWDON 178906											
H.E.S. UNIT #5 / (R/T MILES)				R/T MILES				R/T MILES			
10557697				10026553/10025038							
10237519											
10248051											
10025072											
Form Name _____ Type: _____						Form Thickness _____ From _____ To _____					
Packer Type _____ Set At _____						Bottom Hole Temp. _____ Pressure _____					
Retainer Depth _____ Total Depth _____											
Tools and Accessories											
Type and Size		Qty		Make		New/Used		Weight		Size Grade	
Float Collar				HES		Casing				13 3/8	
Float Shoe				HES		Liner					
Centralizers				HES		Liner					
Top Plug				HES		Tubing					
Limit Clamp				HES		Drill Pipe				5 4.39	
BASKET				HES		Open Hole				12 1/4	
Insert Float				HES		Perforations				Shots/Ft.	
Guide Shoe				HES		Perforations					
Weld-A				HES		DV Tool					
Materials											
Mud Type		Density		Lb/Gal		Date		Hours		Description of Job	
Disp. Fluid		H2O		Density		5/13/05		2.00		SEE JOB LOG	
Prop. Type		Size		Lb		5/14/05		10.00			
Prop. Type		Gal.		%							
Acid Type		Gal.		%							
Acid Type		Gal.		%							
Surfactant		Gal.		In							
NE Agent		Gal.		In							
Fluid Loss		Gal/Lb		In							
Gelling Agent		Gal/Lb		In							
Fric. Red.		Gal/Lb		In							
Breaker		Gal/Lb		In							
Blocking Agent		Gal/Lb									
Peripac Balls		Qty.									
Other											
Other											
Other											
Other											
Other											
Hours On Location											
Date		Hours		Date		Hours		Date		Hours	
5/13/05		2.00		5/13/05		0.50		5/13/05		0.50	
5/14/05		10.00		5/14/05		7.00		5/14/05		7.00	
Total		12.00		Total		7.50		Total		7.50	
Hydraulic Horsepower											
Ordered		Avail.		Used		Average Rates in BPM		Disp.		Overall	
Treating		Cement Left in Pipe		Reason		CUSTOMER REQUEST					
Feet											
Cement Data											
WELL		Sacks		Cement		Bulk/Sks		Additives		W/Rq.	
PLUG 1		200		50/50 POZ		BULK		2% GEL .1% HR-5		5.44	
PLUG 2		150		50/50 POZ		BULK		2% GEL .1% HR-5		5.44	
PLUG 3		515		"G"		BULK		.75% CFR3		3.80	
										Yield	
										1.22	
										14.2	
										1.22	
										17.0	
Summary											
Circulating		Displacement		Preflush: Gal - BBI		Type:		Pad:Bbl - Gal		BBL	
Breakdown		Maximum		Load & Bkdn: Gal - BBI		Calc. Disp Bbl		Actual Disp.		BBL	
Lost Returns-YES		Lost Returns-NO		Excess /Return Gal BBI		Actual Disp.		Disp:Bbl-Gal		BBL	
Cmt Rtn#Bbl		Actual TOC		Calc. TOC:							
Average		Frac. Gradient		Treatment: Gal - BBI							
Shut In: Instant		5 Min.		Cement Skurv: Gal - BBI							
		15 Min.		Total Volume Gal - BBI							
Frac Ring #1		Frac Ring #2		Frac Ring #3		Frac Ring #4					
THE INFORMATION STATED HEREIN IS CORRECT											
CUSTOMER REPRESENTATIVE 											
SIGNATURE 											

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[illegible]

EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

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May 16, 2005

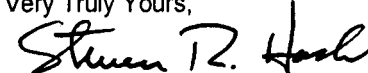
Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Wolverine Federal 8-1 well
Sec 17 T23S R01W
Sevier Co., UT
API# 43-041-30037

Dear Mr. Doucet,

On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed daily drilling reports for the subject well from May 10, 2005 through May 14, 2005. The subject well reached total depth of 7824' on May 13, 2005 and was plugged and abandoned due to dryhole on May 14, 2005 in accordance with regulation. We respectfully request that the enclosed information remain confidential.

Very Truly Yours,



Steven R. Hash
Consulting Engineer for Wolverine Gas and Oil Company of Utah, LLC

copy without enclosures via email to:

Wolverine Gas & Oil Co of Utah, LLC: Helene Bardolph
EXACT Engineering, Inc. well file

RECEIVED

MAY 20 2005

DIV. OF OIL, GAS & MINING

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Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#		SUPERVISOR
05/14/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037		DL NAYLOR
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
29	Plugged back - WOC	2,500			#VALUE!		12000

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.5	32	N/C	2/32	10.0	0.50	4.3	5	10	6/9	7817	5/13/8:30	200,000	2150		330,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd" or TFA)	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION		
											#DIV/0!	80	20-40	48	T	B	G
											#DIV/0!						
											#DIV/0!						
											#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	SLOW PUMP		
													60 spm	80 spm	100 spm
1	National	6"	8.5	2.93									1	250	
2	National	6"	8.5	2.93									2	250	
Both				5.86											

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
				Twin Creek	6,986	6,396		Rig No	Unit 111
								Cell Narren	918-645-6671
								Last BOP Test	4/23
				BOTTOMS UP TIME	BG GAS	GAS DATA	CONN GAS	TRIP GAS	Next BOP Test
				75					5/23
									Last Safety Meeting
									5/12
				GAS UNITS	FROM	SHOWS	TO	ROP (FT/HR)	Last BOP Drill
									5/12
									Last Operate Pipe Ran
									5/10
									Last Operate Blind Ra
									5/10
Total BHA:	0.00								Last Operate Annular
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	5/3
					5,736	17	5,753	7"	LAST CASING
									13-3/8" @ 2053
									9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
								MWD									MWD
								MWD									MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	2:00	2.00	Rig up & set 1st. Plug 7200 to 6900, 200 sks. 50/50 poz. 2% gel .1% HR-5, 14.2 PPG.
2:00	3:30	1.50	POOH 5stds. Kelly up clear pipe, POOH to 5100
3:30	4:00	0.50	Lay 2nd. Cement plug 5100 to 4900, 150 sks. 50/50 poz. 2% gel .1% HR-5 14.2 PPG
4:00	7:30	3.50	POOH to 3060
7:30	8:00	0.50	Lay 3rd. Plug 3060 to 2500 515 sks. Class G W/.75% CFR3 17 PPG
8:00	0:00	16.00	WOC, LDDP, Prep to sidetrack well to 17-6 BHL
0:00			
0:00			
0:00			FINAL REPORT FOR Wolverine Federal 8-1 well; will start new well KMR 17-6 (WF 8-1) in this wellbore at ~2500 ft
0:00			
0:00			See KMR 17-6 (WF 8-1) file for continuation
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

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(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	AP#	SUPERVISOR	
05/13/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
28	RU Haliburton for P&A of 8-1	7,824	81	10.00	8.1	Twin Creek	12000

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.5	32	N/C	2/32	10.0	0.50	4.3	5	10	6/9	7817	5/13/8:30	200,000	2150		330,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd" or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
7	12.250	STC	F27	547	RR	24	24	24	7557	7824	267	30.50	8.8	80	20-40	48	4	4	1
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	Flow Rate (GPM)			
													100 gpm	80 gpm	60 gpm	40 gpm
1	National	6"	8.5	2.93	120	371	145	145	2000	200			1	250		
2	National	6"	8.5	2.93	120	371							2	250		
Both				5.86	240	742	65	75								

SLOW PUMP

		60 spm	80 spm	100 spm
1		250		
2		250		

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
12-1/4"- BIT		1.50		
Directional Assembly		114.54		
5 - 6 5/8" SWDP		150.00		
X-OVER		3.59		
19-5"SWDP		577.03		
JARS		31.80		
4-5"HWDP.		121.00		
Total BHA:		999.46		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
210	55	380	150	350

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Twin Creek	6,986	6,396	
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
75			
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	7"

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	4/23
Next BOP Test	5/23
Last Safety Meeting	5/12
Last BOP Drill	5/12
Last Operate Pipe Ram	5/10
Last Operate Blind Ram	5/10
Last Operate Annular	5/3
LAST CASING	NEXT CASING
13-3/8" @ 2053'	9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+/S-	E+/W-	DLS	TOOL
7,764	4.90	127.00	7168	2682	1907	1886	0.50	MWD
7,824	4.90	130.00	7227	2682	1903	1890	0.50	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	10:00	10.00	Drill & survey 7743 to 7824
10:00	11:00	1.00	Work tight hole, Torque @ 350 to 380, Drag @ 170k, total wt. 380k.
11:00	16:30	5.50	POOH
16:30	19:30	3.00	LD directional assembly & 6 5/8 HWDP
19:30	0:00	4.50	RIH open ended to lay cement plugs.
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			This am POOH for final plug
0:00			
0:00			
0:00			
Daily Total	24.00		

CONFIDENTIAL

COST DATA

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR		COUNTY, STATE	SPUD DATE	API#		SUPERVISOR
05/12/05	Wolverine Federal # 8-1	Unit Rig #111		Sevier, UT	4/16/05	43-041-30037		DL NAYLOR
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
27	Drilling		7,743	186	20.50	9.1	Twin Creek	12000

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.5	30	N/C	2/32	10.0	0.50	4.3	3	7	4/6	7613	5/12/8:30	189,000	2200		311,850

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
7	12.250	STC	F27	547	RR	24	24	24	7557		186	20.50	9.1	80	20-40	48			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	120	371	145	145	2000	200			1	250	
2	National	6"	8.5	2.93	120	371							2	250	
Both				5.86	240	742	65	75							

SLOW PUMP

DRILL STRING					GEOLOGIC				GENERAL INFO		
BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.		FORMATION	MD	TVD	LITHOLOGY	RIG INFO		
12-1/4" BIT	1.50				Twin Creek	6,986	6,396		Rig No	Unit 111	
Directional Assembly	114.54								Cell Narren	918-645-6671	
5 - 6 5/8" SWDP	150.00								Last BOP Test	4/23	
X-OVER	3.59								Next BOP Test	5/23	
19-5"SWDP	577.03								Last Safety Meeting	5/12	
JARS	31.80								Last BOP Drill	5/12	
4-5"HWDP.	121.00								Last Operate Pipe Rar	5/10	
									Last Operate Blind Ra	5/10	
Total BHA:	999.46								Last Operate Annular	5/3	
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	LAST CASING	NEXT CASING	
210	55	325	150	285	5,736	17	5,753	7"	13-3/8"@ 2053	9-5/8"	

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
7,574	5.10	116.30	6978	2676	1919	1864	0.20	MWD									MWD
7,669	4.80	121.70	7073	2680	1912	1879	0.50	MWD									MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	1:00	1.00	Wash 60' to btm. 5' fill
1:00	12:30	11.50	Drill & survey 7557 to 7661
12:30	13:00	0.50	Rig service
13:00	15:30	2.50	Drill & survey 7661 to 7685
15:30	16:00	0.50	Work on pump
16:00	21:00	5.00	Drill & survey 7685 to 7730
21:00	21:30	0.50	Work tight hole 7710 - 7730 pump sweep
21:30	0:00	2.50	Drill & survey 7730 to 7743
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR		COUNTY, STATE	SPUD DATE	API#		SUPERVISOR
05/11/05	Wolverine Federal # 8-1	Unit Rig #111		Sevier, UT	4/16/05	43-041-30037		DL NAYLOR
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
26	RIH		7,557	0	0.00	#DIV/0!	Twin Creek	12000

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.6	31	N/C	2/32	10.0	0.50	4.5	5	7	4/7	7557	5/11/8:30	200,000	2400		330,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
7	12.250	STC	F27	547	RR	24	24	24	7557				#VALUE!	80	20-40	48			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD				
													60 spm	80 spm	100 spm	
1	National	6"	8.5	2.93	125	371	145	145	2000	200			1	250		
2	National	6"	8.5	2.93	125	371							2	250		
Both				5.86	250	742	65	75								

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
12-1/4" BIT		1.50			Twin Creek	6,986	6,396		Rig No Unit 111	
Directional Assembly		114.54							Cell Norren 918-645-6671	
5 - 6 5/8" SWDP		150.00							Last BOP Test 4/23	
X-OVER		3.59			BOTTOMS UP TIME	85			Next BOP Test 5/23	
19-5"SWDP		577.03			GAS DATA		TRIP GAS		Last Safety Meeting 5/10	
JARS		31.80			SHOWS		ROP (FT/HR)		Last BOP Drill 5/10	
4-5"HWDP.		121.00			GAS UNITS		FROM TO		Last Operate Pipe Rar 5/10	
Total BHA:		999.46			GAS UNITS		FROM TO		Last Operate Blind Ra 5/10	
STRING WT.		BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	Last Operate Annular 5/3
190		55	290	150	250	5,736	17	5,753	7"	13-3/8"@ 2053 9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
7,384	6.40	98.30	6789	2671	1922	1855	3.60	MWD									MWD
7,478	5.50	117.50	6883	2676	1919	1864	2.40	MWD									MWD

DAILY ACTIVITY

FROM	TO	LAST 24 HOURS:
0:00	16:00	16:00 Logging
16:00	18:00	2.00 PU Bit mtr. MWD
18:00	0:00	6.00 RIH fill pipe
0:00		
0:00		
0:00		
0:00		
0:00		
0:00		
0:00		
0:00		
0:00		
23:00		
0:00		
0:00		
0:00		
0:00		
0:00		
0:00		
Daily Total	24.00	

COST DATA

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
05/10/05	Wolverine Federal # 8-1	Unit Rig #111	Sevier, UT	4/16/05	43-041-30037	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
25	Logging	7,557	161	12.50	12.9	Twin Creek	6950

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.5	32	N/C	2/32	10.5	0.50	4.0	3	9	5/7	7490	5/10/08:30	200,000	2400		330,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
6	12.250	SEC	SX20		10683245	24	24	24	7050	7557	507	40.00	12.7	80	20-40	48	4	4	1
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.93	125	371	145	145	2000	200			1	250	
2	National	6"	8.5	2.93	125	371							2	250	
Both				5.86	250	742	65	75							

SLOW PUMP

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO
12-1/4" BIT	1.50			Twin Creek	6,986	6,396		Rig No Unit 111
Directional Assembly	114.54							Cell Narren 918-645-6671
5 - 6 5/8" SWDP	150.00							Last BOP Test 4/23
X-OVER	3.59			BOTTOMS UP TIME	BG GAS	GAS DATA CONN GAS	TRIP GAS	Next BOP Test 5/23
19-5"SWDP	577.03			85				Last Safety Meeting 5/10
JARS	31.80			GAS UNITS	FROM	SHOWS TO	ROP (FT/HR)	Last BOP Drill 5/10
4-5"HWDP.	121.00							Last Operate Pipe Rar 5/10
								Last Operate Blind Ra 5/10
Total BHA:	999.46							Last Operate Annular 5/3
STRING WT.	BHA WT.	PU WT.	SO WT.	RÖT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
190	55	290	150	250	5,736	17	5,753	7"
								13-3/8"@ 2053
								9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
7,384	6.40	98.30	6789	2671	1922	1855	3.60	MWD									MWD
7,478	5.50	117.50	6883	2676	1919	1864	2.40	MWD									MWD

DAILY ACTIVITY

FROM	TO	LAST 24 HOURS:
0:00	1:00	1.00 Drill & survey 7396 to 7408
1:00	2:00	1.00 Work pipe, check excessive pressure
2:00	11:00	9.00 Drill & survey 7408 to 7525
11:00	11:30	0.50 Rig service
11:30	14:00	2.50 Drill & survey 7525 to 7557
14:00	15:30	1.50 Circ. Samples, condition for logs
15:30	21:00	5.50 POOH fpr logs
21:00	22:30	1.50 LD directional assembly
22:30	0:00	1.50 Rig up & start logging
0:00		
0:00		
23:00		Log # 1 DLLT
0:00		This am run # 2 SDL/ASN
0:00		
0:00		
0:00		
0:00		
0:00		
Daily Total	24.00	

COST DATA

CONFIDENTIAL

EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

CONFIDENTIAL

CONFIDENTIAL PLEASE!

May 26, 2005

Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

API 43-041-30037
Diana has APD amendment
docs and is processing
Name Change, loc. change
etc.

Re: Wolverine Kings Meadow Ranches 17-6 (WF 8-1) well
Sec 17 T23S R01W
Sevier Co., UT
API# 43-041-30037

Dear Mr. Doucet,

On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed daily drilling reports for the subject well from inception on May 15, 2005 through May 26, 2005. The well was spudded at 8:00am on May 15, 2005. This is a sidetrack of the previous Wolverine Federal 8-1 well which was plugged back on May 13, 2005. 13-3/8" csg was already set at 2053' and the well was sidetracked at 2500'. 9-5/8" casing was set on May 24 @ 6094'. We are presently drilling 8-1/2" hole at 6587' expecting to set 7" production near 6700' TD. We respectfully request that the enclosed information remain confidential.

Very Truly Yours,

Steven R. Hash
Consulting Engineer for Wolverine Gas and Oil Company of Utah, LLC

copy without enclosures via email to:

Wolverine Gas & Oil Co of Utah, LLC: Helene Bardolph
EXACT Engineering, Inc. well file

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RECEIVED

JUN 01 2005

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR		COUNTY, STATE	SPUD DATE	API#		SUPERVISOR
05/26/05	KMR 17-6 (WF 8-1)	Unit Rig #111		Sevier, UT	5/15/05	43-041-30037-0001		DL NAYLOR
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
12	Drilling		6,587	447	18.00	24.8	Navajo	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
8.4	34	11.0	1/32	9.0	0.00	0.50	6	5	4/6	6176	5/26/17:30	4,000	140		6,600

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION
4	8.500	SEC.	XS30S	537	10686493	12 12 12	6110				#VALUE!	Y	35/100	35	
											#DIV/0!				
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

SLOW PUMP

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	67 spm	76 spm	100 spm
1	National	6"	8.5	2.96	125	400							1		
2	National	6"	8.5	2.96									2		
Both				2.96	125	400			1400	100					

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO
8 1/2" BIT	1.50			Arapiean				Rig No Unit 111
Directional Assembly	120.00			Twin Creek	5,906	5,694		Cell Warren 918-645-6671
				Navajo				Last BOP Test 5/24
X-OVER	2.50							Next BOP Test 6/21
19-5"SWDP	577.03							Last Safety Meeting 5/24
JARS	31.80							Last BOP Drill 5/24
4-5"HWDP.	121.00							Last Operate Pipe Rar 5/24
								Last Operate Blind Ra 5/24
								Last Operate Annular 5/24
Total BHA:	853.83							LAST CASING NEXT CASING
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
175	40	225	145	280	5,736	17	5,753	6,100
								9 5/8"
								7"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	5:30	5.50	Dump 20,000 (mg/l) chloride mud, Build fresh mud to get chlorides below 10,000 (mg/l)
5:30	14:30	9.00	Drill & survey 6140 to 6323
14:30	15:00	0.50	Rig service
15:00	0:00	9.00	Drill & survey 6323 to 6587
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	AP#	SUPERVISOR	
0525/2005	KMR 17-6 (WF 8-1)	Unit Rig #111	Sevier, UT	5/15/05	43-041-30037-0001	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
11	Build vol.	6,140	30	1.50	20.0	Twin creek	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
					no check										

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION
4	8.500	SEC.	XS30S	537	10686493	12 12 12	6110	6140	30	1.50	20.0	Y	35/100	35	T B G
											#DIV/0!				
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

SLOW PUMP

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	67 spm	76 spm	100 spm
1	National	6"	8.5	2.96	125	400							1		
2	National	6"	8.5	2.96									2		
Both				2.96	125	400			1400	100					

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO		
8 1/2"- BIT		1.50			Arapiean				Rig No	Unit 111	
Directional Assembly		120.00			Twin Creek	5,906	5,694		Cell Norren	918-645-6671	
									Last BOP Test	5/24	
X-OVER		2.50			BOTTOMS UP TIME	BG GAS	GAS DATA CONN GAS		TRIP GAS	Next BOP Test	
19-5"SWDP		577.03								6/21	
JARS		31.80			SHOWS					Last Safety Meeting	5/24
4-5"HWDP.		121.00			GAS UNITS	FROM	TO		ROP (FT/HR)	Last BOP Drill	
										5/24	
										Last Operate Pipe Ram	
										5/24	
										Last Operate Blind Ram	
										5/24	
Total BHA:		853.83								Last Operate Annular	
										5/24	
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	LAST CASING	NEXT CASING	
175	40	225	145	280	5,736	17	5,753	6,100	9 5/8"	7"	

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
5,879	4.10	350.00	5671	543	986	380	1.50	MWD									MWD
6,060	1.70	54.80	5852	550	995	380	2.70	MWD									MWD

DAILY ACTIVITY

FROM	TO	LAST 24 HOURS:
0:00	1:00	1.00 Pack off MBS
1:00	8:00	7.00 Test BOPE, upper & lower kelly valves, inside bop, safety valve, pipe & blind rams, inside & outside valves,choke manifold & lines, kill line & valves to 500 psi. for 10 min. Annular to 2500 psi. for 10 min.
8:00	8:00	
8:00	10:30	2.50 PU directional assembly
10:30	15:30	5.00 RIH
15:30	16:00	0.50 Kelly up fill pipe
16:00	18:00	2.00 Drill cement & shoe
18:00	19:30	1.50 Drill 6110 to 6140
19:30	0:00	4.50 Dump 20,000 (mg/l) chloride mud, Build fresh mud to get chlorides below 10,000 (mg/l)
0:00		
0:00		
23:00		
0:00		
0:00		
0:00		
0:00		
0:00		
0:00		
Daily Total	24.00	

COST DATA

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	AP#	SUPERVISOR	
05/24/05	KMR 17-6 (WF 8-1)	Unit Rig #111	Sevier, UT	5/15/05	43-041-30037-0001	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
10	Pack off MBS	6,110	0	0.00	#DIV/0!	Twin creek	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.5	32	n/c	2/32	10.5	0.50	3.75	7	11	6/9	6110	5/24/09:00	200,000	2780		333,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION
											#DIV/0!				
											#DIV/0!				
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

SLOW PUMP

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	67 spm	76 spm	100 spm
1	National	6"	8.5	2.96	115	367							1	260	
2	National	6"	8.5	2.96	115	367							2	300	
Both				5.92	230	734	144	170	2100	200					

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
12-1/4" BIT		1.50			Arapiean				Rig No	Unit 111
Directional Assembly		114.54			Twin Creek	5,906	5,694		Cell Nørren	918-645-6671
5 - 6 5/8" SWDP		150.00							Last BOP Test	5/24
X-OVER		3.59			BOTTOMS UP TIME	BG GAS	GAS DATA		Next BOP Test	6/21
							CORN GAS	TRIP GAS	Last Safety Meeting	5/24
19-5"SWDP		577.03							Last BOP Drill	5/24
JARS		31.80			GAS UNITS	FROM	SHOWS		Last Operate Pipe Rar	5/24
							TO	ROP (F/THR)	Last Operate Blind Ra	5/24
4-5"HWD.		121.00							Last Operate Annular	5/24
Total BHA:		999.46								
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	LAST CASING	NEXT CASING
					5,736	17	5,753	6,100	9 5/8"	7"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
5,879	4.10	350.00	5671	543	986	380	1.50	MWD									MWD
6,060	1.70	54.80	5852	550	995	380	2.70	MWD									MWD

DAILY ACTIVITY

FROM	TO	LAST 24 HOURS:
0:00	2:00	2.00 POOH
2:00	6:00	4.00 LD Directional assembly, clean & prepare floor to run csng.
6:00	9:00	3.00 Rig up casers
9:00	18:00	9.00 Run 134 jts. 9 5/8", 47#, HC-P110, 6076' set @ 6094'
18:00	20:00	2.00 Circ. While rigging down cacing crew.
20:00	22:30	2.50 RU Haliburton cementers & cement 9 5/8" intermediate csng. With 230 sks. 50/50 pos. cmt,
22:30	22:30	Plug down @ 21:45, Floats held, RD cementers
22:30	0:00	1.50 Pack off MBS
0:00		
0:00		
0:00		
23:00		
0:00		
0:00		This am. 30 day test of BOPE
0:00		
0:00		
0:00		
0:00		
Daily Total	24.00	

COST DATA

CONFIDENTIAL

(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
05/23/05	KMR 17-6 (WF 8-1)	Unit Rig #111	Sevier, UT	5/15/05	43-041-30037-0001	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
9	POOH to run csng.	6,110	343	19.50	17.6	Twin creek	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.5	32	n/c	2/32	10.5	0.50	3.75	5	10	5/8	5957	5/23/09:00	200.000	2600		333.000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd) or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
3	12.250	RTC	HP53A	537	PB4486	24	24	24	5079	6110	1031	51.50	20.0	Y	20/130	45			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	Flow Rate			
													67 spm	76 spm	100 spm	125 spm
1	National	6"	8.5	2.96	125	371							1	260		
2	National	6"	8.5	2.96	125	371							2		300	
Both				5.92	250	742	145	171	1600	200						

SLOW PUMP

		67 spm	76 spm	100 spm
1	260			
2		300		

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
12-1/4"- BIT		1.50			Arapiean				Rig No	Unit 111
Directional Assembly		114.54			Twin Creek	5,906	5,694		Cell Norren	918-645-6671
5 - 6 5/8" SWDP		150.00							Last BOP Test	4/23
X-OVER		3.59			BOTTOMS UP TIME	BG GAS	GAS DATA CONN GAS	TRIP GAS	Next BOP Test	5/23
19-5"SWDP		577.03							Last Safety Meeting	5/20
JARS		31.80			SHOWS				Last BOP Drill	5/20
4-5"HWD.		121.00			GAS UNITS	FROM	TO	ROP (FT/HR)	Last Operate Pipe Ra	5/20
									Last Operate Blind Ra	5/20
									Last Operate Annular	5/15
Total BHA:		999.46							LAST CASING	NEXT CASING
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG		
165	55	240	125	300	5,736	17	5,753		13-3/8"@ 2053	9-5/8"

GEOLOGIC

GENERAL INFO

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
5.879	4.10	350.00	5671	543	986	380	1.50	MWD
6.060	1.70	54.80	5852	550	995	380	2.70	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	12:00	12.00	Drill & survey 5767 to 6024
12:00	12:30	0.50	Rig service
12:30	20:00	7.50	Drill & survey 6024 to 6110
20:00	22:30	2.50	Circ. & condition to run 9 5/8" csng.
22:30	0:00	1.50	POOH
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total		24.00	

CONFIDENTIAL

~~CONFIDENTIAL~~

COST DATA

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
05/22/05	KMR 17-6 (WF 8-1)	Unit Rig #111	Sevier, UT	5/15/05	43-041-30037-0001	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
8	Drilling	5,767	505	23.50	21.5	Arapiean	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.5	32	n/c	2/32	10.0	0.50	4.00	4	11	6/9	5079	5/22/09:00	200,000	2600		333,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION
3	12.250	RTC	HP53A	537	PB4486	24 24 24	5079		688	32.00	21.5	Y	20/130	45	T B G
											#DIV/O!				
											#DIV/O!				
											#DIV/O!				

HYDRAULICS

SLOW PUMP

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	67 spm	76 spm	100 spm
1	National	6"	8.5	2.96	125	371							1	260	
2	National	6"	8.5	2.96	125	371							2		300
Both				5.92	250	742	145	171	1600	200					

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO
12-1/4" - BIT	1.50			Arapiean				Rig No Unit 111
Directional Assembly	114.54							Cell Narren 918-645-6671
5 - 6 5/8" SWDP	150.00							Last BOP Test 4/23
X-OVER	3.59							Next BOP Test 5/23
19-5"SWDP	577.03							Last Safety Meeting 5/20
JARS	31.80							Last BOP Drill 5/20
4-5"HWDP.	121.00							Last Operate Pipe Rar 5/20
								Last Operate Blind Ra 5/20
								Last Operate Annular 5/15
Total BHA:	999.46							LAST CASING NEXT CASING
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
165	55	240	125	300	5,736	17	5,753	13-3/8" @ 2053 9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	OLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	OLS	TOOL
5,123	7.30	298.60	4919	467	925	426	1.10	MWD									MWD
5,784	5.20	338.00	5577	535	978	383	0.40	MWD									MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	14:00	14:00	Drill & survey 5262 to 5614
14:00	14:30	0.50	Rig service
14:30	0:00	9.50	Drill & survey 5614 to 5767
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

CONFIDENTIAL

24 hrs - midnight to midnight

AFS DHC \$	1 033 685	DAILY MUD \$	2 651	DAILY DRILLING COST \$	50 500
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Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR		COUNTY, STATE	SPUD DATE	AP#		SUPERVISOR
05/20/05	KMR 17-6 (WF 8-1)	Unit Rig #111		Sevier, UT	5/15/05	43-041-30037-0001		DL NAYLOR
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT		TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
6	RIH		5,035	516	21.50	24.0	Arapiean	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.4	32	n/c	2/32	10.0	0.50	3.50	3	12	5/8	4650	5/20/09:00	200,000	2600		333,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
																	T	B	G
2	12.250	RTC	HP51A	517	P70649	24	24	24	4519		516	21.50	24.0	Y	20/130	45			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD				
													60 spm	80 spm	100 spm	
1	National	6"	8.5	2.96	125	371							1			
2	National	6"	8.5	2.96	125	371							2			
Both				5.92	250	742	145	171	1600	200						

DRILL STRING

DRILL STRING				GEOLOGIC				GENERAL INFO			
BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO			
12-1/4"- BIT	1.50			Arapiean				Rig No	Unit 111		
Directional Assembly	114.54							Cell Narren	918-645-6671		
5 - 6 5/8" SWDP	150.00							Last BOP Test	4/23		
X-OVER	3.59							Next BOP Test	5/23		
19-5"SWDP	577.03							Last Safety Meeting	5/20		
JARS	31.80							Last BOP Drill	5/20		
4-5"HWD.P.	121.00							Last Operate Pipe Ran	5/20		
								Last Operate Blind Ra	5/20		
Total BHA:	999.46							Last Operate Annular	5/15		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	LAST CASING NEXT CASING		
165	55	240	125	300	5,736	17	5,753		13-3/8"@ 2053	9-5/8"	

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
4,566	9.60	311.90	4370	386	884	504	1.10	MWD									MWD
4,945	8.70	294.00	4743	446	915	448	1.20	MWD									MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	1:00	1.00	RIH
1:00	1:30	0.50	Wash & ream 4482 to 4519
1:30	13:30	12.00	Drill & survey 4519 to 4844
13:30	14:00	0.50	Rig service
14:00	17:30	3.50	Drill & survey 4844 to 4944
17:30	18:00	0.50	Work on pump
18:00	0:00	6.00	Drill & survey 4944 to 5035
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			This am trip to adjust motor
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
05/19/05	KMR 17-6 (WF 8-1)	Unit Rig #111	Sevier, UT	5/15/05	43-041-30037-0001	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
5	RIH	4,519	362	16.00	22.6	Arapiean	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.4	31	n/c	2/32	9.5	0.50	3.50	3	9	4/7	4385	5/18/09:00	200,000	2000		333,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
1	12.250	RTC	HP43A	417	B73489	24	24	24	2677	4519	1842	86.50	21.3	Y	20/130	45	8	8	1
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD			60 spm	80 spm	100 spm
1	National	6"	8.5	2.96	125	371							1				
2	National	6"	8.5	2.96	125	371							2				
Both				5.92	250	742	145	171	1600	200							

SLOW PUMP

		60 spm	80 spm	100 spm
1				
2				

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
12-1/4"- BIT		1.50		
Directional Assembly		114.54		
5 - 6 5/8" SWDP		150.00		
X-OVER		3.59		
19-5"SWDP		577.03		
JARS		31.80		
4-5"HWD.P.		121.00		
Total BHA:		999.46		
STRING WT.	BHA WT.	PU WT.	SO WT.	RÖT. TORQUE
145	55	180	120	220

GEOLOGIC

	FORMATION	MD	TVD	LITHOLOGY
	Arapiean			
			GAS DATA	
BOTTOMS UP TIME	BG GAS		CONN GAS	TRIP GAS
			SHOWS	
GAS UNITS	FROM		TO	ROP (FT/HR)
E	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
	5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	4/23
Next BOP Test	5/23
Last Safety Meeting	5/17
Last BOP Drill	5/15
Last Operate Pipe Ram	5/15
Last Operate Blind Ram	5/15
Last Operate Annular	5/15
LAST CASING	NEXT CASING
13-3/8" @ 2053	9-5/8"

SURVEYS

[illegible]

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	14:30	14.50	Drill & survey 4157 to 4504
14:30	15:00	0.50	Rig service
15:00	16:30	1.50	Drill & survey 4504 to 4519
16:30	19:00	2.50	POOH for bit
19:00	22:00	3.00	Change bit motot & MWD, PU gamma tools
22:00	0:00	2.00	RIH
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total		24.00	

CONFIDENTIAL

COST DATA

AFE PDC \$	1,933.685	DAILY MUD \$	2,761	DAILY DRILLING COST \$	44,600
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(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
05/18/05	KMR 17-6 (WF 8-1)	Unit Rig #111	Sevier, UT	5/15/05	43-041-30037-0001	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
4	Drilling	4,157	667	23.50	28.4	Arapiean	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.5	32	n/c	2/32	10.5	0.50	3.75	4	10	6/9	3180	5/17/09:00	200,000	2000		333,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION			
						T	B	G												
1	12.250	RTC	HP43A	417	B73489	24	24	24	2677			813	47.50	17.1	Y	20/130	45			
														#DIV/0!						
														#DIV/0!						
														#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECO		60 spm	80 spm	100 spm
1	National	6"	8.5	2.96	125	371							1			
2	National	6"	8.5	2.96	125	371							2			
Both				5.92	250	742	145	171	1600	200						

SLOW PUMP

	60 spm	80 spm	100 spm
1			
2			

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
12-1/4" BIT		1.50		
Directional Assembly		114.54		
5 - 6 5/8" SWDP		150.00		
X-OVER		3.59		
19-5"SWDP		577.03		
JARS		31.80		
4-5"HWDP.		121.00		
Total BHA:		999.46		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
145	55	180	120	220

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Narren	918-645-6671
Last BOP Test	4/23
Next BOP Test	5/23
Last Safety Meeting	5/17
Last BOP Drill	5/15
Last Operate Pipe Ram	5/15
Last Operate Blind Ram	5/15
Last Operate Annular	5/15
LAST CASING	NEXT CASING
13-3/8" @ 2053	9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+/-S-	E+/W-	DLS	TOOL
3,707	9.20	307.70	3523	241	784	611	1.00	MWD
4,085	9.90	313.00	3896	301	812	565	0.88	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS
0:00	13:30	13.50	Drill & survey 3490 to 3780
13:30	14:00	0.50	Rig service
14:00	0:00	10.00	Drill & survey 3780 TO 4157
0:00	0:00		
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total		24.00	

CONFIDENTIAL

COST DATA

AFE DHC \$	1,933,685	DAILY MUD \$	1,690	DAILY DRILLING COST \$	33,404
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(918) 599-9400

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	AP#	SUPERVISOR	
05/17/05	KMR 17-6 (WF 8-1)	Unit Rig #111	Sevier, UT	5/15/05	43-041-30037-0001	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
3	Work on # 2 pump	3,490	462	23.00	20.1	Arapiean	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.5	32	n/c	2/32	10.5	0.50	3.75	4	10	6/9	3180	5/17/09:00	200,000	2000		333,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd" or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
1	12.250	RTC	HP43A	417	B73489	24	24	24	2677		813	47.50	17.1	Y	20/130	45			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD		60 spm	80 spm	100 spm
1	National	6"	8.5	2.96	125	371							1			
2	National	6"	8.5	2.96	125	371							2			
Both				5.92	250	742	145	171	1600	200						

SLOW PUMP

		60 spm	80 spm	100 spm
1				
2				

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.
12-1/4"- BIT		1.50		
Directional Assembly		114.54		
5 - 6 5/8" SWDP		150.00		
X-OVER		3.59		
19-5"SWDP		577.03		
JARS		31.80		
4-5"HWD.P.		121.00		
Total BHA:		999.46		
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE
105	55	125	95	220

GEOLOGIC

FORMATION	MD	TVD	LITHOLOGY
Arapiean			
GAS DATA			
BOTTOMS UP TIME	BG GAS	CONN GAS	TRIP GAS
SHOWS			
GAS UNITS	FROM	TO	ROP (FT/HR)
GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG
5,736	17	5,753	

GENERAL INFO

RIG INFO	
Rig No	Unit 111
Cell Norren	918-645-6671
Last BOP Test	4/23
Next BOP Test	5/23
Last Safety Meeting	5/17
Last BOP Drill	5/15
Last Operate Pipe Ram	5/15
Last Operate Blind Ram	5/15
Last Operate Annular	5/15
LAST CASING	NEXT CASING
13-3/8" @ 2053	9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
3,045	15.80	13.60	2876	135	656	620	5.60	MWD
3,423	11.30	1.30	3243	196	743	633	3.30	MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	11:00	11.00	Drill & survey 3028 to 3244
11:00	11:30	0.50	Rig service
11:30	23:30	12.00	Drill & survey 3244 to 3490
23:30	0:00	0.50	Work on #2 pump
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

CONFIDENTIAL

COST DATA

AFE DHC \$	1 022 695	DAILY MUD \$	1 690	DAILY DRILLING COST \$	22 522
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Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
05/16/05	KMR 17-6 (WF 8-1)	Unit Rig #111	Sevier, UT	5/15/05	43-041-30037-0001	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
2	Drilling	3,028	335	20.00	16.8	Arapiean	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.4	31	n/c	2/32	11.0	0.50	3.25	5	8	6/9	2753	5/16/09:00	198,000	2000		326,700

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION		
																	T	B	G
1	12.250	RTC	HP43A	417	B73489	24	24	24	2677		16	4.50	3.6	Y	20/130	2			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD				
													60 spm	80 spm	100 spm	
1	National	6"	8.5	2.96	125	371							1			
2	National	6"	8.5	2.96	125	371							2			
Both				5.92	250	742	145	171	1600	200						

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
12-1/4"- BIT		1.50			Arapiean				Rig No	Unit 111
Directional Assembly		114.54							Cell Norren	918-645-6671
5 - 6 5/8" SWDP		150.00							Last BOP Test	4/23
X-OVER		3.59			BOTTOMS UP TIME	BG GAS	GAS DATA CONN GAS	TRIP GAS	Next BOP Test	5/23
19-5"SWDP		577.03							Last Safety Meeting	5/15
JARS		31.80			GAS UNITS	FROM	SHOWS TO	ROP (FT/HR)	Last BOP Drill	5/15
4-5"HWDP		121.00							Last Operate Pipe Ran	5/15
									Last Operate Blind Ran	5/15
Total BHA:		999.46							Last Operate Annular	5/15
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	LAST CASING	NEXT CASING
105	55	125	95	220	5,736	17	5,753		13-3/8"@ 2053	9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
2,685	25.00	49.50	2538	781	558	546	4.70	MWD	2,763	22.20	45.40	2610	812	579	569	4.30	MWD
2,857	20.40	38.60	2697	846	604	592	2.50	MWD	2,951	18.30	29.80	2786	877	630	610	5.20	MWD

DAILY ACTIVITY

FROM	LAST 24 HOURS:		
0:00	1:00	1.00	RIH to 2630
1:00	1:30	0.50	Orientate motor & wash to btm.
1:30	6:00	4.50	Time drill 2693 to 2713, 5' hr.
6:00	13:00	7.00	Drill & survey 2713 to 2867
13:00	13:30	0.50	Rig service
13:30	0:00	10.50	Drill & survey 2867 to 3028
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

AFE DHC \$	1,933.685	DAILY MUD \$	1.516	DAILY DRILLING COST \$	33,532
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CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
05/15/05	KMR 17-6 (WF 8-1)	Unit Rig #111	Sevier, UT	5/15/05	43-041-30037-0001	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
1	Trip for MWD	2,693	16	4.50	3.6	Arapiean	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.5	35	n/c	2/32	10.5	0.50	4.25	7	18	9/14	2551	5/15/10:00	2,000	2000		330,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION
1	12.250	RTC	HP43A	417	B73489	24 24 24	2677		16	4.50	3.6	Y	20/130	2	T B G
											#DIV/0!				
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.96	125	371							1		
2	National	6"	8.5	2.96	125	371							2		
Both				5.92	250	742	145	171	1600	200					

SLOW PUMP

DRILL STRING					GEOLOGIC					GENERAL INFO				
BOTTOMHOLE ASSEMBLY	LENGTH	O.D.	I.D.		FORMATION	MD	TVD	LITHOLOGY		RIG INFO				
12-1/4" BIT	1.50				Arapiean					Rig No	Unit 111			
Directional Assembly	114.54									Cell Narren	918-645-6671			
5 - 6 5/8" SWDP	150.00									Last BOP Test	4/23			
X-OVER	3.59									Next BOP Test	5/23			
19-5"SWDP	577.03									Last Safety Meeting	5/15			
JARS	31.80									Last BOP Drill	5/15			
4-5"HWDP.	121.00									Last Operate Pipe Ran	5/15			
										Last Operate Blind Ra	5/15			
Total BHA:	999.46									Last Operate Annular	5/15			
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG		LAST CASING	NEXT CASING			
100	55	120	95	200	5,736	17	5,753			13-3/8"@ 2053	9-5/8"			

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
								MWD									MWD
								MWD									MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	8:00	8.00	WOC / PU dir ass. Ready to dress plug @ 08:00 - Spud @ 8am 5/15/05
8:00	9:00	1.00	Wash to 2552' cement not firm.
9:00	15:30	6.50	Wash to 2677 With 180 TF, found firm cement, Total set time on plug 30 hrs.
15:30	20:00	4.50	Time drill 2677 to 2693, 5' hr.
20:00	0:00	4.00	POOH to change MWD
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			NOTE: This wellbore was originally the Wolverine Federal 8-1 which was plugged back from 7824 ft to 2500',
0:00			the wellbore was renamed to the Kings Meadow Ranches 17-6 (WF 8-1) and sidetracked to the previously
0:00			approved KMR 17-6 bottom hole location. API# remains unchanged at 43-041-30037
0:00			
0:00			
Daily Total	24.00		

COST DATA

AFF DHC \$

1 933 685

DAILY MUD \$

315

DAILY DRILLING COST \$

113.206

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
05/15/05	KMR 17-6 (WF 8-1)	Unit Rig #111	Sevier, UT	5/15/05	43-041-30037-0001	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
1	Trip for MWD	2,693	16	4.50	3.6	Arapiean	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM
10.5	35	n/c	2/32	10.5	0.50	4.25	7	18	9/14	2551	5/15/10:00	2,000	2000		330,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION
1	12.250	RTC	HP43A	417	B73489	24 24 24	2677		16	4.50	3.6	Y	20/130	2	
											#DIV/0!				
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

SLOW PUMP

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	60 spm	80 spm	100 spm
1	National	6"	8.5	2.96	125	371							1		
2	National	6"	8.5	2.96	125	371							2		
Both				5.92	250	742	145	171	1600	200					

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
12-1/4"- BIT		1.50			Arapiean				Rig No	Unit 111
Directional Assembly		114.54							Cell Narren	918-645-6671
5 - 6 5/8" SWDP		150.00							Last BOP Test	4/23
X-OVER		3.59			BOTTOMS UP TIME	BG GAS	GAS DATA CONN GAS	TRIP GAS	Next BOP Test	5/23
19-5"SWDP		577.03							Last Safety Meeting	5/15
JARS		31.80			GAS UNITS	FROM	SHOWS TO	ROP (FT/HR)	Last BOP Drill	5/15
4-5"HWDP.		121.00							Last Operate Pipe Ra	5/15
									Last Operate Blind Ra	5/15
Total BHA:		999.46							Last Operate Annular	5/15
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	LAST CASING	NEXT CASING
100	55	120	95	200	5,736	17	5,753		13-3/8"@ 2053	9-5/8"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
								MWD									MWD
								MWD									MWD

DAILY ACTIVITY

FROM	TO	TIME	LAST 24 HOURS:
0:00	8:00	8.00	WOC / PU dir ass. Ready to dress plug @ 08:00 - Spud @ 8am 5/15/05
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15:30	20:00	4.50	Time drill 2677 to 2693, 5' hr.
20:00	0:00	4.00	POOH to change MWD
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			NOTE: This wellbore was originally the Wolverine Federal 8-1 which was plugged back from 7824 ft to 2500',
0:00			the wellbore was renamed to the Kings Meadow Ranches 17-6 (WF 8-1) and sidetracked toward the previously
0:00			approved KMR 17-6 bottom hole location. API# remains unchanged at 43-041-30037
0:00			
0:00			
0:00			
Daily Total	24.00		

COST DATA

AFE DHC \$ 1,933.685

DAILY MUD \$

315

DAILY DRILLING COST \$

113,206

CONFIDENTIAL

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	API#	SUPERVISOR	
05/15/05	KMR 17-6 (WF 8-1)	Unit Rig #111	Sevier, UT	5/15/05	43-041-30037-0001	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
1	Trip for MWD	2,693	16	4.50	3.6	Arapiean	6770 md

MUD DATA

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10.5	35	n/c	2/32	10.5	0.50	4.25	7	18	9/14	2551	5/15/10:00	2,000	2000		330,000

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd" or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION		
						T	B	G											
1	12.250	RTC	HP43A	417	B73489	24	24	24	2677		16	4.50	3.6	Y	20/130	2			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	SLOW PUMP		
													60 spm	80 spm	100 spm
1	National	6"	8.5	2.96	125	371							1		
2	National	6"	8.5	2.96	125	371							2		
Both				5.92	250	742	145	171	1600	200					

DRILL STRING

BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
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Directional Assembly		114.54							Cell Narren	918-645-6671
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X-OVER		3.59			BOTTOMS UP TIME	BG GAS	GAS DATA CONN GAS	TRIP GAS	Next BOP Test	
19-5"SWDP		577.03							Last Safety Meeting	5/15
JARS		31.80			GAS UNITS	FROM	SHOWS TO	ROP (F1/HR)	Last BOP Drill	
4-5"HWD.P.		121.00							Last Operate Pipe Ran	5/15
									Last Operate Blind Ran	5/15
									Last Operate Annular	5/15
Total BHA:		999.46								
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG	LAST CASING	NEXT CASING
100	55	120	95	200	5,736	17	5,753		13-3/8"@ 2053	9-5/8"

GEOLOGIC

GENERAL INFO

SURVEYS

MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL
								MWD									MWD
								MWD									MWD

DAILY ACTIVITY

FROM			LAST 24 HOURS:
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15:30	20:00	4.50	Time drill 2677 to 2693, 5' hr.
20:00	0:00	4.00	POOH to change MWD
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			
23:00			
0:00			NOTE: This wellbore was originally the Wolverine Federal 8-1 which was plugged back from 7824 ft to 2500',
0:00			the wellbore was renamed to the Kings Meadow Ranches 17-6 (WF 8-1) and sidetracked toward the previously
0:00			approved KMR 17-6 bottom hole location. API# remains unchanged at 43-041-30037
0:00			
0:00			
Daily Total	24.00		

CONFIDENTIAL

COST DATA

AFE DHC \$ 1,933,685

DAILY MUD \$

315

DAILY DRILLING COST \$

113 206

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☒
(highlight changes)

APPLICATION FOR PERMIT TO DRILL				5. MINERAL LEASE NO: Private	6. SURFACE: Fee
1A. TYPE OF WORK: DRILL <input type="checkbox"/> REENTER <input checked="" type="checkbox"/> DEEPEN <input checked="" type="checkbox"/>				7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>				8. UNIT or CA AGREEMENT NAME:	
2. NAME OF OPERATOR: Wolverine Gas & Oil Company of Utah, LLC				9. WELL NAME and NUMBER: KingsMeadowRanches17-6(WF8-1)	
3. ADDRESS OF OPERATOR: 55 Campau CITY Grand Rapids STATE MI ZIP 49503-2616			PHONE NUMBER: (616) 458-1150	10. FIELD AND POOL, OR WILDCAT: Covenant	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1680' FNL & 2265' FWL, Sec 17 T23S - R01W (amended)? AT PROPOSED PRODUCING ZONE: 1038' N & 418' E of SHL (irregular section)				11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 17 23S 01W	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 3.5 miles S of Sigurd, UT				12. COUNTY: Sevier	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 500' west		16. NUMBER OF ACRES IN LEASE: 160		17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 16' SHL; approx 500' west		19. PROPOSED DEPTH: 6,840		20. BOND DESCRIPTION: Pending	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5753' KB		22. APPROXIMATE DATE WORK WILL START: 5/15/2005			

Amended APD for WF 8-1

*Name change KMR17-6(RH)
• BHL change
• TD change
* Already drilled
* lease change.*

24. PROPOSED CASING AND CEMENTING PROGRAM									
SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT				
30"	20	X42	.25 wall	123	conductor cmtd (exi				
17-1/2"	13-3/8"	J55	61 ppf	2,053	HiFill (exist)				
					Prem G (exist)				
12-1/4"	9-5/8"	N80	47 ppf	5,950	50:50 POZ	450sx	1.71 cfps	13 ppg	
8-1/2"	7"	N80	26 ppf	6,840	50:50 POZ	400sx	1.27 cfps	14.35 ppg	
<div style="display: flex; justify-content: space-between;"> <div> <i>Prop BHL</i> 418859X 4295715Y 38.808340 -111.934506 </div> <div> note: revised APD to re-enter WF 8-1 </div> </div>									

25. VERIFY THE FOLLOWING ARE TRUE:		ATTACHMENTS	
<input checked="" type="checkbox"/> WELL PLAT OR MAP	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN		
<input type="checkbox"/> EVIDENCE OF DIVISION	<input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER		

NAME (PLEASE PRINT) Steven R. Hash - Consulting Engineer TITLE EXACT Engineering Inc (918) 599-9400

SIGNATURE *Steven R. Hash* DATE 5/25/2005

(This space for State use only)

API NUMBER ASSIGNED: _____

APPROVAL: _____

CONFIDENTIAL
RECEIVED
JUN 01 2005
DIV OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☒
(highlight changes)

APPLICATION FOR PERMIT TO DRILL				5. MINERAL LEASE NO: Private	6. SURFACE: Fee
1A. TYPE OF WORK: DRILL <input type="checkbox"/> REENTER <input checked="" type="checkbox"/> DEEPEN <input checked="" type="checkbox"/>				7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>				8. UNIT or CA AGREEMENT NAME:	
2. NAME OF OPERATOR: Wolverine Gas & Oil Company of Utah, LLC				9. WELL NAME and NUMBER: KingsMeadowRanches17-6(WF8-1)	
3. ADDRESS OF OPERATOR: 55 Campau CITY Grand Rapids STATE MI ZIP 49503-2616			PHONE NUMBER: (616) 458-1150	10. FIELD AND POOL, OR WILDCAT: Covenant	
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14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 3.5 miles S of Sigurd, UT				12. COUNTY: Sevier	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 500' west		16. NUMBER OF ACRES IN LEASE: 160		17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 16' SHL; approx 500' west		19. PROPOSED DEPTH: 6,840		20. BOND DESCRIPTION: Pending	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5753' KB		22. APPROXIMATE DATE WORK WILL START: 5/15/2005		23. ESTIMATED DURATION: 20 days	

24. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT			
30"	20	X42	.25 wall	123	conductor cmtd (exist)			
17-1/2"	13-3/8"	J55	61 ppf	2,053	HiFill (exist)	595sx lead	3.96 cfps	11 ppg
					Prem G (exist)	475sx tail	1.18 cfps	15.6 ppg
12-1/4"	9-5/8"	N80	47 ppf	5,950	50:50 POZ	450sx	1.71 cfps	13 ppg
8-1/2"	7"	N80	26 ppf	6,840	50:50 POZ	400sx	1.27 cfps	14.35 ppg
					note: revised APD to re-enter WF 8-1			

25. **ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- | | |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN |
| <input type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER | <input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER |

NAME (PLEASE PRINT) Steven R. Hash - Consulting Engineer TITLE EXACT Engineering Inc (918) 599-9400
SIGNATURE *Steven R. Hash* DATE 5/25/2005

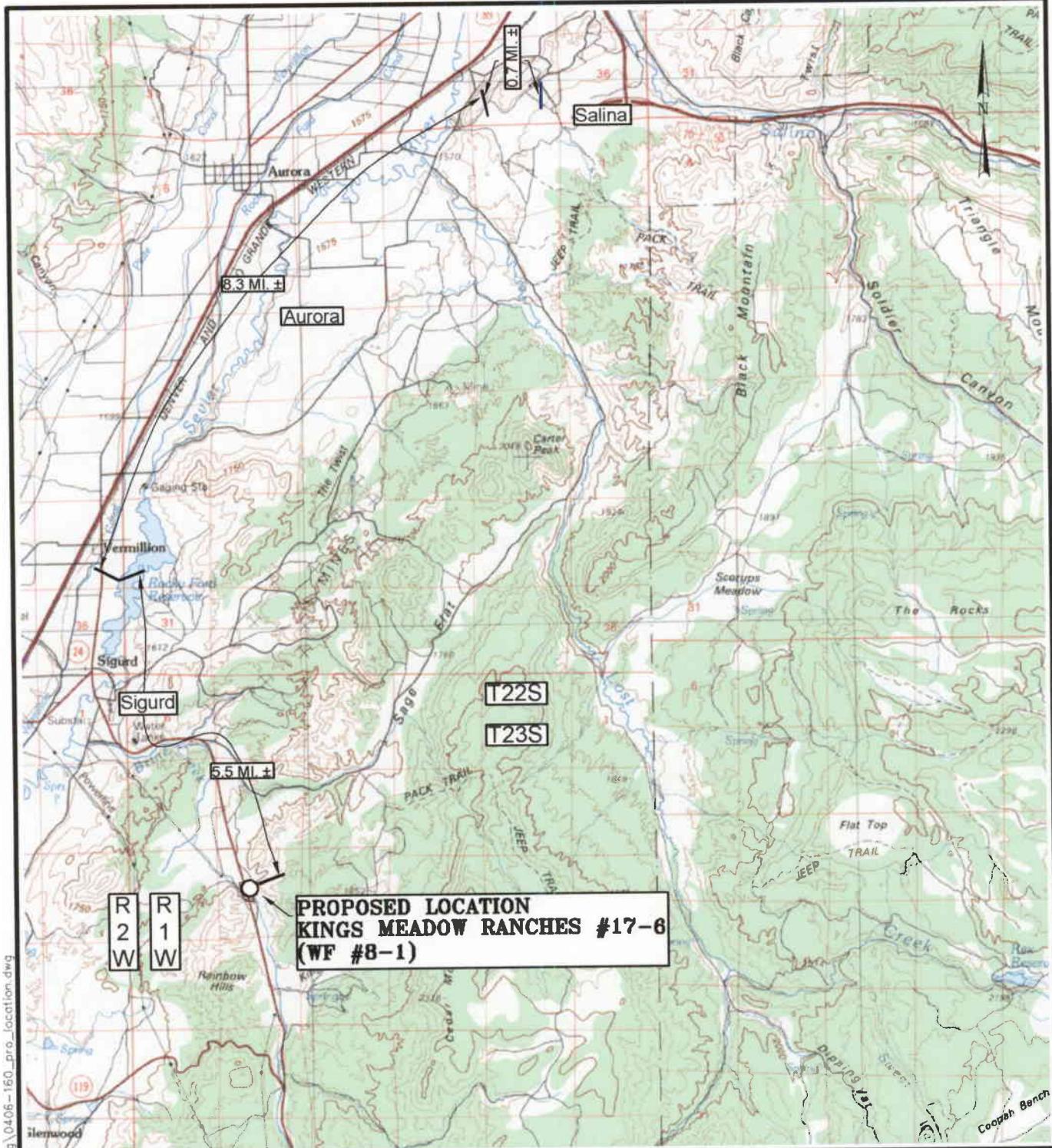
(This space for State use only)

API NUMBER ASSIGNED: _____

APPROVAL: _____

CONFIDENTIAL
RECEIVED
JUN 01 2005
DIV OF OIL, GAS & MINING

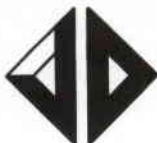
LATITUDE = 38°48'19.4600" (38.805405556)
LONGITUDE = -111°56'02.2729" (111.933964694)



LEGEND



PROPOSED LOCATION



Jones & DeMille Engineering

1535 South 100 West - Richfield, Utah 84701
 (435) 896-8266 Phone
 (435) 896-8268 Fax
www.jonesanddemille.com

Kings Meadow Ranch #17-6 (WF #8-1)
 Section 17, T.23 S., R.1 W., S.L.B. & M.
 1680' FNL 2265' FWL

Wolverine Gas & Oil Corp.

Kings Meadow Ranch #17-6

(WF #8-1) Location Map

SCALE: 1" = 10000 ENG.: D.H.R.

PROJ.#: 0406-160

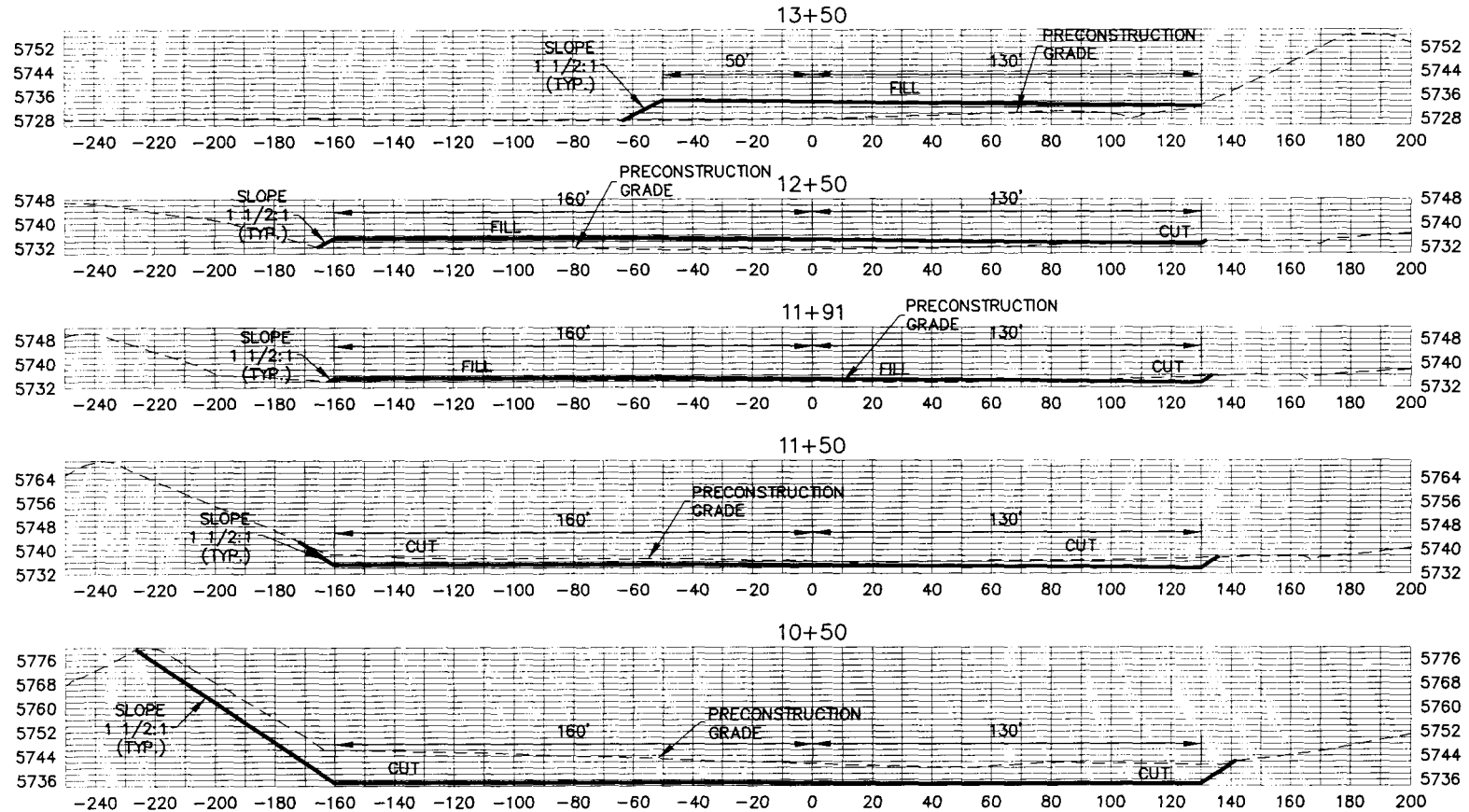
DATE: 05/27/05 DWG.BY: T.R.G.

DWG.NAME: pro_location

CONFIDENTIAL

WOLVERINE GAS & OIL COMPANY OF UTAH, LLC.

TYPICAL CROSS SECTIONS FOR KINGS MEADOW RANCHES #17-6 (WF#8-1) SECTION 17, T.23 S., R.1 W., S.L.B.& M.



CONFIDENTIAL



Jones & DeMille Engineering
1535 South 100 West - Richfield, Utah 84701
Phone (435) 896-8266
Fax (435) 896-8268
www.jonesanddemille.com

Typical Cross Sections for

Wolverine Gas & Oil Company of Utah, LLC.

DESIGNED	SURVEYED T.W.G.	CHECKED T.R.G.	DRAWN T.R.G.	PROJECT NO. 0407-139	SHEET NO. 1
DATE 05/27/05		DWG NAME Design	SCALE 1"=60'		

WORKSHEET

API NO. ASSIGNED: 43-041-30037

CONTACT: RICHARD MORITZ

PHONE NUMBER: 616-458-1150

SENW 17 230S 010W

SURFACE: 1680 FNL 2265 FWL

BOTTOM: 0660 FNL 1925 FWL

SEVIER

COVENANT (492)

LEASE TYPE: 4 - Fee

LEASE NUMBER:	FEE
1	100
2	100
3	100
4	100
5	100
6	100
7	100
8	100
9	100
10	100
11	100
12	100
13	100
14	100
15	100
16	100
17	100
18	100
19	100
20	100
21	100
22	100
23	100
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85	100
86	100
87	100
88	100
89	100
90	100
91	100
92	100
93	100
94	100
95	100
96	100
97	100
98	100
99	100
100	100

SURFACE OWNER: 4 - Fee

PROPOSED FORMATION: NAVA

COALBED METHANE WELL? NO

INSPECT LOCATN BY: /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LATITUDE: 38.80554

LONGITUDE: -111.9332

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[] Ind[] Sta[] Fee[]
(No. 19107754)

1 Potash (Y/N)

N Oil Shale 190-5 (B) or 190-3 or 190-13

✓ Water Permit
(No. 63-2529)

N RDCC Review (Y/N)
(Date:)

✓ Fee Surf Agreement (Y/N)

* Wolverine is the Surface Owner

LOCATION AND SITING:

 R649-2-3.

Unit WOLVERINE

R649-3-2. General

Siting: 460' From Qtr/Qtr & 920' Between Wells

____ R649-3-3. Exception

____ Drilling Unit

Board Cause No:

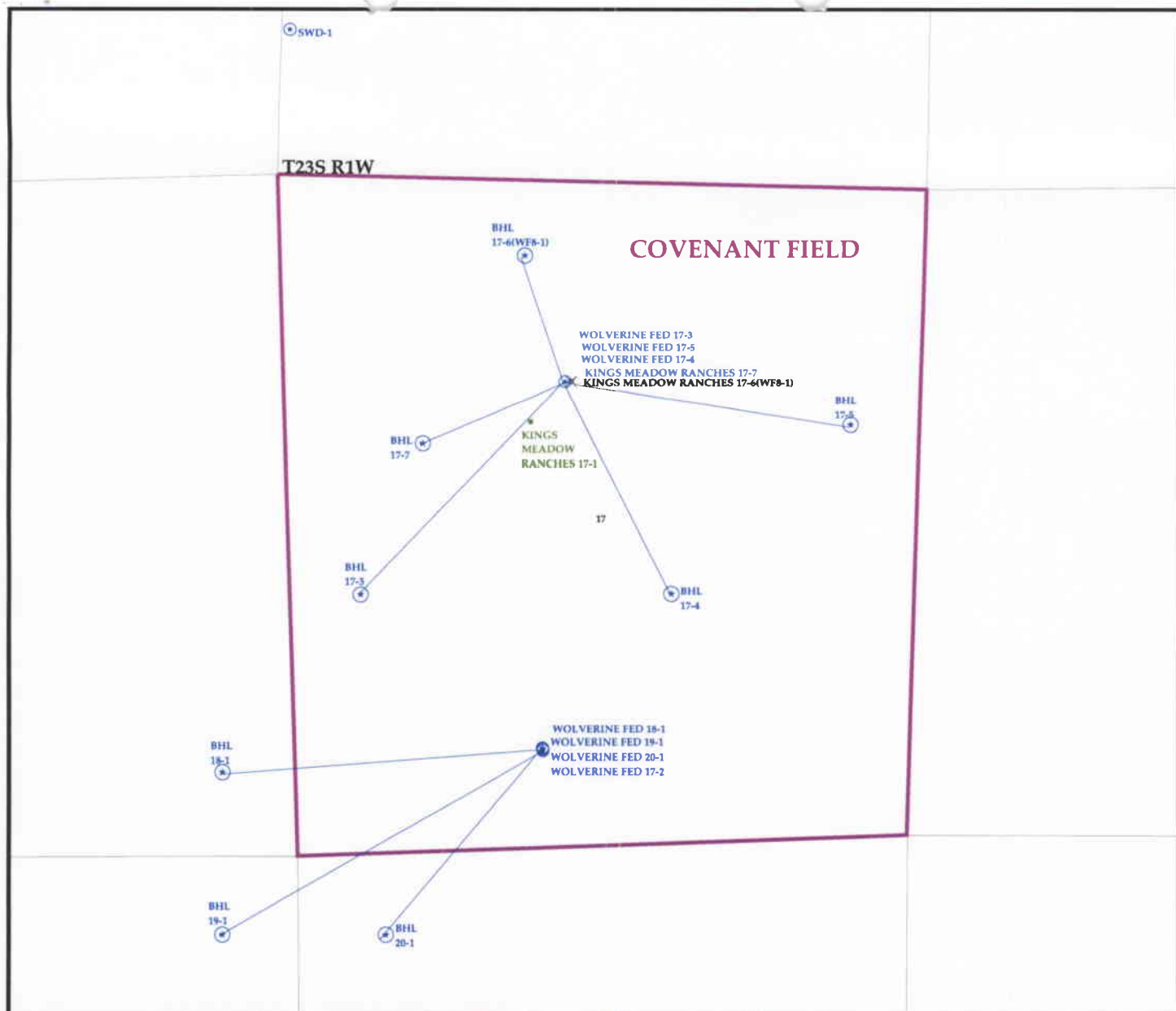
Eff Date:

Siting:

R649-3-11. Directional Drill

COMMENTS:

STIPULATIONS:



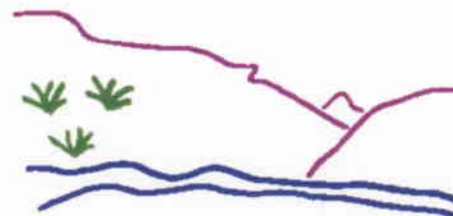
OPERATOR: WOLVERINE G&O CO (N1655)

SEC: 17 T. 23S R. 1W

FIELD: COVENANT (492)

COUNTY: SEVIER

SPACING: R649-3-11 / DIRECTIONAL DRILLING



Utah Oil Gas and Mining

Wells	Units.shp	Fields.shp
⊕ GAS INJECTION	EXPLORATORY	ABANDONED
⊙ GAS STORAGE	GAS STORAGE	ACTIVE
× LOCATION ABANDONED	NF PP OIL	COMBINED
⊕ NEW LOCATION	NF SECONDARY	INACTIVE
⊕ PLUGGED & ABANDONED	PENDING	PROPOSED
⊕ PRODUCING GAS	PI OIL	STORAGE
⊕ PRODUCING OIL	PP GAS	TERMINATED
⊕ SHUT-IN GAS	PP GEOTHERML	
⊕ SHUT-IN OIL	PP OIL	
⊕ TEMP. ABANDONED	SECONDARY	
⊕ TEST WELL	TERMINATED	
⊕ WATER INJECTION		
⊕ WATER SUPPLY		
⊕ WATER DISPOSAL		



PREPARED BY: DIANA WHITNEY
DATE: 9-JUNE-2005



UTAH DEPARTMENT OF NATURAL RESOURCES

Division of Oil, Gas & Mining

Oil and Gas Program

1594 West North Temple, Suite 1210, Box 145801

Salt Lake City, Utah 84114-5801

(801) 538-5340 Phone

(801) 359-3940 Fax

NOTICE OF VIOLATION
STATE OF UTAH
OIL AND GAS CONSERVATION ACT

To the following operator:

Name: Wolverine Gas & Oil Company of Utah, LLC

Well or Site: Kings Meadow Ranches 17-6(WF 8-1) API #: 43-041-30037

Location: Township 23S, Range 01W Section 17, County Sevier

Date and Time of Inspection/Violation: May 27, 2005 @ 3:02 p.m. (phone confirmation of BHL)

Mailing Address: 55 Campau
Grand Rapids, MI 49503-2616

Under the authority of the Utah Oil and Gas Conservation Act, Section 40-6 et. Seq., Utah Code Annotated, 1953, as amended, the undersigned authorized representative of the Division of Oil, Gas and Mining has conducted an inspection of the above described site and/or records on the above date and has found alleged violation(s) of the act, rules or permit conditions as described below.

Description of Violation(s):

Rule R649-3-6-1, *Drilling operations shall be conducted according to the drilling program submitted on the original APD and as approved by the division...* Verbal approval was given May 13, 2005 by Dustin Doucet of the Division to sidetrack this well to a BHL of 660' FNL and 1925' FWL (1022' N and 83' W of the SHL). Wolverine subsequently drilled the well to an approximate BHL 1038' N and 418' E of the SHL.

Action: Wolverine shall meet with the division to discuss drainage and spacing issues associated with this well and the other Wolverine wells in this section. A Board spacing hearing may ultimately be needed to resolve these issues and to protect correlative rights. Additional permits overlaying this pool may not be approved until this NOV is resolved.

Rule R649-3-3, Exception to Location and Siting of Wells – The permitted BHL was a legal location. The BHL that Wolverine drilled to was an exception location. An application for the exception well location was never submitted by Wolverine and never approved by the Division.

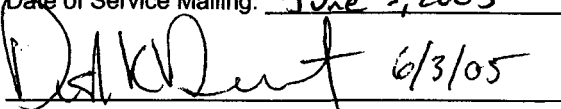
Action: Wolverine shall submit a complete exception location request in accordance with R649-3-3 and R649-3-11. Because of the close proximity to the Federal lease line (~106'), this well may not be allowed to produce until proof of correlative rights protection is received. This may entail a Board spacing and pooling order.

This notice shall remain in effect until it is modified, terminated, or vacated by a written notice of an authorized representative of the director of the Division of Oil, Gas and Mining.

Compliance Deadline: July 15, 2005

Date of Service Mailing: June 3, 2005

Time of Service Mailing: 3:00 p.m.


6/3/05

Division's Representative

Operator or Representative

(If presented in person)

EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

CONFIDENTIAL PLEASE!

May 26, 2005

Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Wolverine's - Kings Meadow Ranches 17-6 (WF 8-1) well
Sec 17 T23S R01W
Sevier Co., UT
API# 43-041-30037

Dear Mr. Doucet,

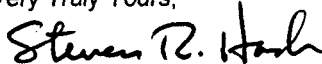
On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed the following per your request:

- 1) Amended form 3, Application For Permit To Drill (cover page), to change well name from Wolverine Federal 8-1 to Kings Meadow Ranches 17-6 (WF 8-1).
- 2) Surveyor's plat changing SHL from 1680' FNL & 2217' FWL to 1680' FNL & 2265' FWL (ie FROM our slot F on drill pad A-2 as originally intended TO our slot C) plus accompanying amended topographic, location layout and cross-section plats.
- 3) Revised drilling prognosis and directional plan changing bottom-hole location, formation tops and casing setting points for the sidetrack operation.

Please recall that the original wellbore was for the Wolverine Federal 8-1 well which was plugged and abandoned. The wellbore was immediately re-named and then re-entered.

We respectfully request that the enclosed information remain confidential.

Very Truly Yours,



Steven R. Hash
Consulting Engineer for Wolverine Gas and Oil Company of Utah, LLC

copy with enclosures to:

U.S. Bureau of Land Management; Salt Lake City, UT office;
Wolverine Gas & Oil Co of Utah, LLC; Grand Rapids, MI office
EXACT Engineering, Inc.

Mr. Al McKee
Mr. Ed Higuera
well file

RECEIVED

JUN 3 1 2005

DIVISION OF OIL, GAS & MINING

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

COPY

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER:
UTU-73528

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL ☐ GAS WELL ☐ OTHER Drilling well

2. NAME OF OPERATOR:
Wolverine Gas and Oil Company of Utah, LLC

3. ADDRESS OF OPERATOR:
55 Campau, NW CITY **Grand Rapids** STATE **MI** ZIP **49203**

PHONE NUMBER:
(616) 458-1150

4. LOCATION OF WELL

FOOTAGES AT SURFACE: **1680' FNL & 2265' FWL**

COUNTY: **Sevier**

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: **SENW 17 23S 1W**

STATE: **UTAH**

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>6/6/2005</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>suspend operations</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

PLEASE KEEP THE ENCLOSED INFORMATION CONFIDENTIAL - THANK YOU

Production casing was set May 29 and drilling operations were completed May 30, 2005

Further operations on the subject well have been temporarily suspended until additional wells can be drilled from this drill pad A2. This well is secured with a drilling cap flange. It is estimated that drilling operations from this location will be completed by approximately July 1, 2005 and completion operations will begin on or about July 15, or as soon thereafter as a completion rig becomes available.

xc: BLM

COPY SENT TO OPERATOR
Date: 6-20-05
Initials: CHD

NAME (PLEASE PRINT) **Steven R. Hash - EXACT Engineering, Inc**

TITLE **Consulting Engineer for Wolverine Gas & Oil**

SIGNATURE Steven R. Hash

DATE **6/6/2005**

(This space for State use only)

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 6/20/05
BY: D. S. H. H.

Federal Approval Of This
Action Is Necessary

CONFIDENTIAL

EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

*Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com*

CONFIDENTIAL PLEASE!

June 8, 2005

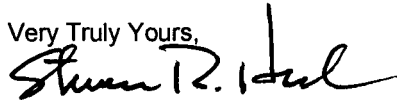
Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Wolverine Kings Meadow Ranches 17-6 (WF 8-1) well
Sec 17 T23S R01W
Sevier Co., UT
API# 43-041-30037-0001

Dear Mr. Doucet,

On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed daily drilling reports for the subject well from May 27, 2005 through May 30, 2005. TD of 6765' was reached on May 27, the well logged and 7" production casing set & cemented on May 29. Operations have been suspended until about July 15, 2005. A sundry notice of these suspended operations is enclosed. We respectfully request that the enclosed information remain confidential.

Very Truly Yours,



Steven R. Hash
Consulting Engineer for Wolverine Gas and Oil Company of Utah, LLC

copy without enclosures via email to:

Wolverine Gas & Oil Co of Utah, LLC: Helene Bardolph
EXACT Engineering, Inc. well file

RECEIVED

JUN 10 2005

DIV. OF OIL & GAS MINING

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

Operator: Wolverine G&O Co of Utah, LLC

DAILY DRILLING REPORT

24 hrs - midnight to midnight

DATE	WELL	CONTRACTOR	COUNTY, STATE	SPUD DATE	AP#	SUPERVISOR	
05/30/05	KMR 17-6 (WF 8-1)	Unit Rig #111	Sevier, UT	5/15/05	43-041-30037-0001	DL NAYLOR	
DAYS F/ SPUD	PRESENT OPERATIONS @ MIDNIGHT	TOTAL DEPTH	PROGRESS	DRILLING TIME	ROP	FORMATION	AUTH. DEPTH
16	Rig down	6,765			#VALUE!	Navajo	6770 md

MUD DATA

WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM

BIT DATA

BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA	IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM	WOB	DULL CONDITION
											#DIV/0!				T B G
											#DIV/0!				
											#DIV/0!				
											#DIV/0!				

HYDRAULICS

PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD	67 spm	76 spm	100 spm
1	National	6"	8.5	2.96									1		
2	National	6"	8.5	2.96									2		
Both															

SLOW PUMP

DRILL STRING

GEOLOGIC

GENERAL INFO

BOTTOMHOLE ASSEMBLY				LENGTH	O.D.	I.D.	FORMATION	MD	TVD	LITHOLOGY	RIG INFO	
							Arapiean				Rig No	Unit 111
							Twin Creek	5,906	5,694		Cell Narren	918-645-6671
							Navajo	6,321			Last BOP Test	
							BOTTOMS UP TIME	BG GAS	GAS DATA CONN GAS	TRIP GAS	Next BOP Test	
											Last Safety Meeting	
							GAS UNITS	FROM	SHOWS TO	ROP (FT/HR)	Last BOP Drill	
											Last Operate Pipe Ran	
											Last Operate Blind Ra	
Total BHA:				0.00							Last Operate Annular	
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG			LAST CASING	NEXT CASING
					5,736	17	5,753	6,100			9 5/8"	7"

SURVEYS

MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL

DAILY ACTIVITY

FROM			LAST 24 HOURS:
0:00	6:00	6:00	Shut down for night
6:00	6:00	12:00	Rig down wait on trucks
6:00	0:00	6:00	Shut down for night
0:00			Prep to skid ahead 48 ft from slot C to slot F for KMR 17-7 well.
0:00			
0:00			
0:00			
0:00			
0:00			
0:00			Note: this well was sidetrack at 2500' of previous Wolverine Federal 8-1
0:00			
0:00			Production casing and casing running cost 5/29-30 will be included with Well Completion Cost on the completion report
0:00			
0:00			FINAL DRLG REPORT THIS WELL - OFF REPT UNTIL COMPLETION BEGINS AFTER ALL WELLS DRILLED THIS PAD A-2
0:00			
0:00			
0:00			
0:00			
0:00			
Daily Total	24.00		

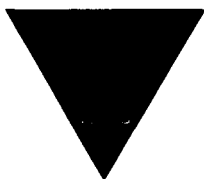
CONFIDENTIAL

[illegible]

24 hrs - midnight to midnight

[illegible]

Engineering & Supervision		EXACT Engineering, Inc.										(918) 599-9400							
Operator: Wolverine G&O Co of Utah, LLC		DAILY DRILLING REPORT										24 hrs - midnight to midnight							
DATE 05/27/05		WELL KMR 17-6 (WF 8-1)		CONTRACTOR Unit Rig #111				COUNTY, STATE Sevier, UT		SPUD DATE 5/15/05		API# 43-041-30037-0001		SUPERVISOR DL NAYLOR					
DAYS F/SPUD 13		PRESENT OPERATIONS @ MIDNIGHT Logging				TOTAL DEPTH 6,765		PROGRESS 178		DRILLING TIME 7.00		ROP 25.4		FORMATION Navajo AUTH. DEPTH 6770 md					
MUD DATA																			
WT	VIS.	WL	CK	PH	SAND	SOLIDS %	PV	YP	GELS	DEPTH	DATE/TIME	CHLORIDES	CALCIUM	MBT	SALT PPM				
8.4	32	10.0	1/32	10.0	0.50	0.75	3	5	3/5	6764	5/27/08:30	3,200	120		5,280				
BIT DATA																			
BIT NO.	SIZE	MFG.	TYPE	IADC CODE	SERIAL NO.	JETS (1/32nd") or TFA			IN	OUT	FOOTAGE	HOURS	ROP	MTR	RPM RT+MTR	WOB	DULL CONDITION T B G		
4	8.500	SEC.	XS30S	537	10686493	12	12	12	6110	6765	655	25.50	25.7	Y	35/100	35			
													#DIV/0!						
													#DIV/0!						
													#DIV/0!						
HYDRAULICS																SLOW PUMP			
PUMP NO.	MANUFACTURER	LINER	STROKE LENGTH	GAL / STK	SPM	GPM	AV DP	AV DC	PUMP PRESS.	MTR DIFF PRESS.	HHP / IN ²	ECD			67 spm	76 spm	100 spm		
1	National	6"	8.5	2.96	125	400							1						
2	National	6"	8.5	2.96									2						
Both				2.96	125	400			1400	100									
DRILL STRING					GEOLOGIC								GENERAL INFO						
BOTTOMHOLE ASSEMBLY		LENGTH	O.D.	I.D.	FORMATION		MD		TVD		LITHOLOGY		RIG INFO						
8 1/2"- BIT		1.50			Arapiean								Rig No Unit 111						
Bit sub		3.00			Twin Creek		5,906		5,694				Cell Narren 918-645-6671						
					Navajo		6,321						Last BOP Test 5/24						
					BOTTOMS UP TIME		BG GAS		CONN GAS		TRIP GAS		Next BOP Test 6/21						
19-5"SWDP		577.03											Last Safety Meeting 5/24						
JARS		31.80			GAS UNITS		FROM		TO		ROP (FT/HR)		Last BOP Drill 5/24						
4-5"HWDP.		121.00											Last Operate Pipe Rar 5/24						
													Last Operate Blind Ra 5/24						
Total BHA:		734.33											Last Operate Annular 5/24						
STRING WT.	BHA WT.	PU WT.	SO WT.	ROT. TORQUE	GRD. ELEVATION	GL TO KB	KB ELEVATION	INTERMEDIATE CSG					LAST CASING NEXT CASING						
175	40	225	145	280	5,736	17	5,753	6,100					9 5/8" 7"						
SURVEYS																			
MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL	MD	INCL.	AZIMUTH	TVD	SECTION	N+ / S-	E+ / W-	DLS	TOOL		
DAILY ACTIVITY																			
FROM			LAST 24 HOURS:																
0:00	6:30	6.50	Drill & survey 6587 to 6750																
6:30	8:00	1.50	Circulate & condition																
8:00	8:30	0.50	Drill & survey 6750 to 6765 - TD 6765 @ 8:30 am 05/05/27																
8:30	10:00	1.50	Circulate & condition																
10:00	14:00	4.00	POOH for logs																
14:00	16:00	2.00	LD dir. Tools, clean walk																
16:00	0:00	8.00	Rig up & log.																
0:00			1st run resistivity, 2nd run Gr/SDL/DSN, 3rd run FMI.																
0:00																			
0:00																			



WOLVERINE GAS AND OIL COMPANY of Utah, LLC

Energy Exploration in Partnership with the Environment

June 29, 2005

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 W. N. Temple, Suite 1210
Salt Lake City, UT 84114-5801

*Needs Dir
Drill in 10
red via email 5/31/05
6/9 neo
6/24*

RE: Request for Directional Drilling/Exception to Rule R649-3-2
Wolverine Federal 17-6 (Wolverine Federal 8-1)
Covenant Field, Sevier County, Utah
API No 43-041-300370001

Dear Ms. Whitney:

The purpose of this letter is to provide information pertaining to the captioned well pursuant to a request for an exception location Rule R649-3-2. The proposed bottom hole location for the Wolverine Federal 17-6 (WF 8-1) at the top of the Navajo is 704' FNL and 115' FWL of the NW/4 NE/4, Section 17, T23S, R01W. The Navajo target location is 345' feet west of the 400' "window" allowed under Rule R649-3-2 (see attached diagram). The proposed location falls within the Wolverine Federal Unit and Wolverine Gas and Oil owns all mineral leases for the proposed BHL as well as mineral leases within a 460' radius of the proposed Navajo target and for all directly or diagonally offsetting drilling locations. The exception to Rule R649-3-2 is needed because Wolverine is in the process of defining the limits of the Covenant Field structure and our current geologic interpretation suggests the proposed bottom hole location would be more favorable than a Navajo target located further east within the 400' "window" provided for in Rule R649-3-2. The closest well to the planned BHL of the WF 17-6 (WF 8-1) is the KMR 17-1, which intersected the top of the Navajo 1436' south southwest of the proposed WF 17-6 (WF 8-1) BHL location.

If you have any questions, please call me at 616-458-1150. Thank you for your attention to this matter.

Sincerely,

John P. Vrona
Manager of Geology

cc: Edward A. Higuera
WF 17-6 (WF 8-1) Well Log File

My Coordinates

2751 FWL

685 FNL

Their Coordinates

±2710 FWL

704 FNL

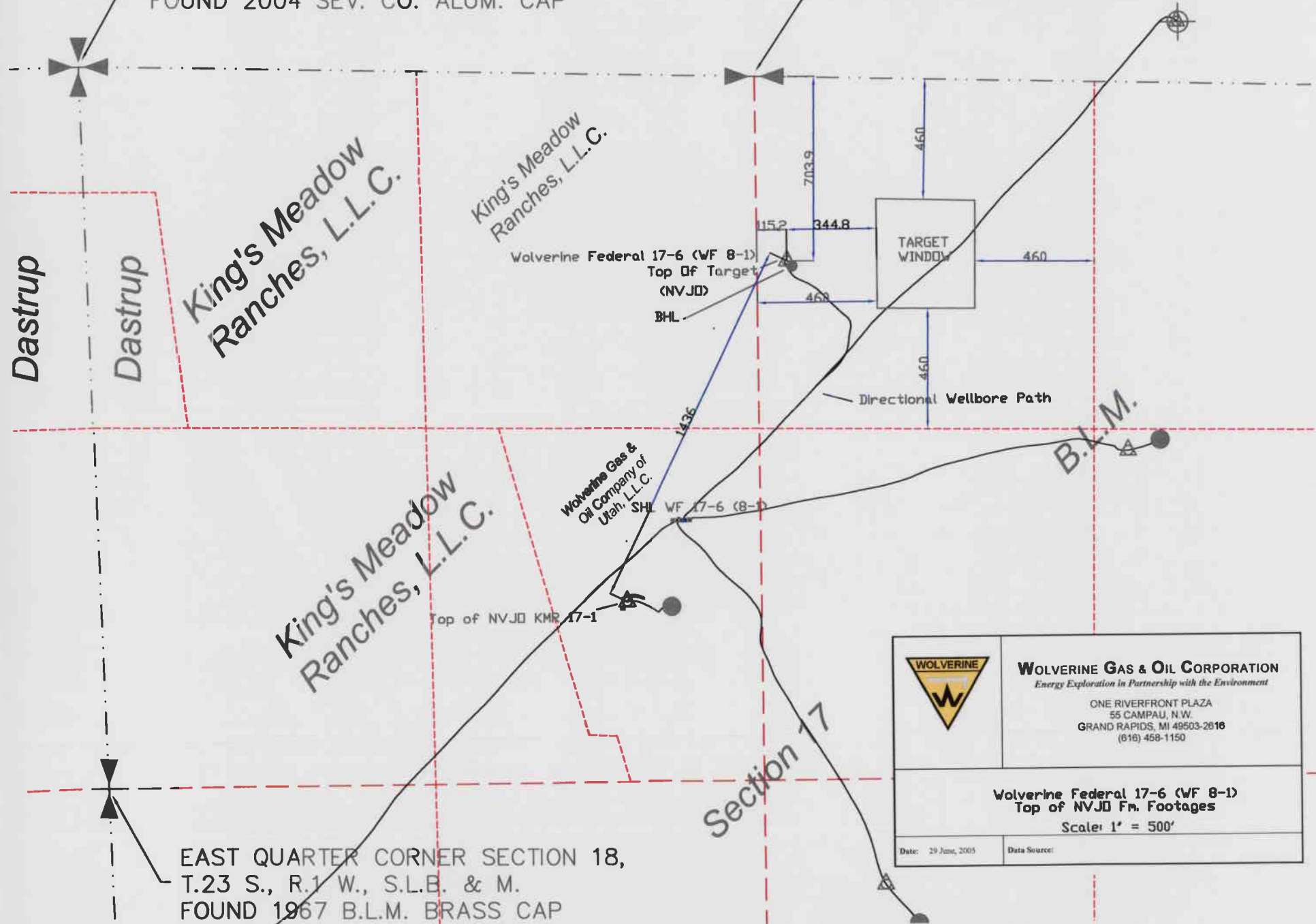
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JUL 01 2005

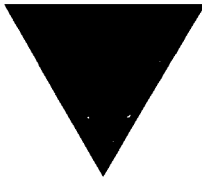
SCALE: 1"=500 ft.

NORTHEAST CORNER SECTION 18,
T.23 S., R.1 W., S.L.B. & M.
FOUND 2004 SEV. CO. ALUM. CAP

NORTH QUARTER CORNER SECTION 17,
T.23 S., R.1 W., S.L.B. & M.
FOUND 1967 B.L.M. BRASS CAP



	WOLVERINE GAS & OIL CORPORATION <i>Energy Exploration in Partnership with the Environment</i> ONE RIVERFRONT PLAZA 55 CAMPAU, N.W. GRAND RAPIDS, MI 49503-2818 (616) 458-1150
	Wolverine Federal 17-6 (WF 8-1) Top of NVJD Fm. Footages Scale: 1" = 500'
Date: 29 June, 2005	Data Source:



WOLVERINE GAS AND OIL COMPANY
of Utah, LLC

Energy Exploration in Partnership with the Environment

June 29, 2005

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 W. N. Temple, Suite 1210
Salt Lake City, UT 84114-5801

RE: Request for Directional Drilling/Exception to Rule R649-3-10 Pursuant to Rule
R649-3-11
Wolverine Federal 17-6 (Wolverine Federal 8-1)
Covenant Field, Sevier County, Utah
API No 43-041-300370001

Dear Ms. Whitney:

The purpose of this letter is to provide you with information pertaining to the directional drilling of the Wolverine Federal 17-6 (Wolverine Federal 8-1) in accordance with Rule R649-3-10 pursuant to Rule R649-3-11. The WF 17-6 (WF 8-1) will be directionally drilled from a surface location known as the A-2 Pad, which is the same pad used to drill the Wolverine Federal 17-3, 17-4 and 17-5 wells. The well is to be directionally drilled due to the limited availability of suitable surface hole locations as well as Wolverine's commitment to minimizing the "footprint" of our operations. The proposed bottom hole location of the WF 17-6 (WF 8-1) at the top of the Navajo is 704' FNL & 345' FWL of the NW/4 NE/4, Section 17, T23S, R01W. The indicated Navajo target is 345' west of the 400' "window" allowed under rule R649-3-2 (see attached diagram).

The proposed location falls within the Wolverine Federal Unit and Wolverine Gas and Oil owns the mineral lease for the proposed bottom hole location and the mineral leases within a 460' radius of the proposed Navajo BHL and for all directly or diagonally offsetting drilling locations. Wolverine Gas and Oil also owns all leases with a 460' radius offsetting the entire proposed trajectory of the wellbore. An exception to Rule R649-3-10 pursuant to Rule R649-3-11 is needed because a vertical well is not feasible given our existing surface and land situation.

If you have any questions, please call me at 616-458-1150. Thank you for your attention to this matter.

Sincerely,

John P. Vrona
Manager of Geology

cc: Edward A. Higuera
WF 17-6 (WF 8-1) Well Log File

RECEIVED

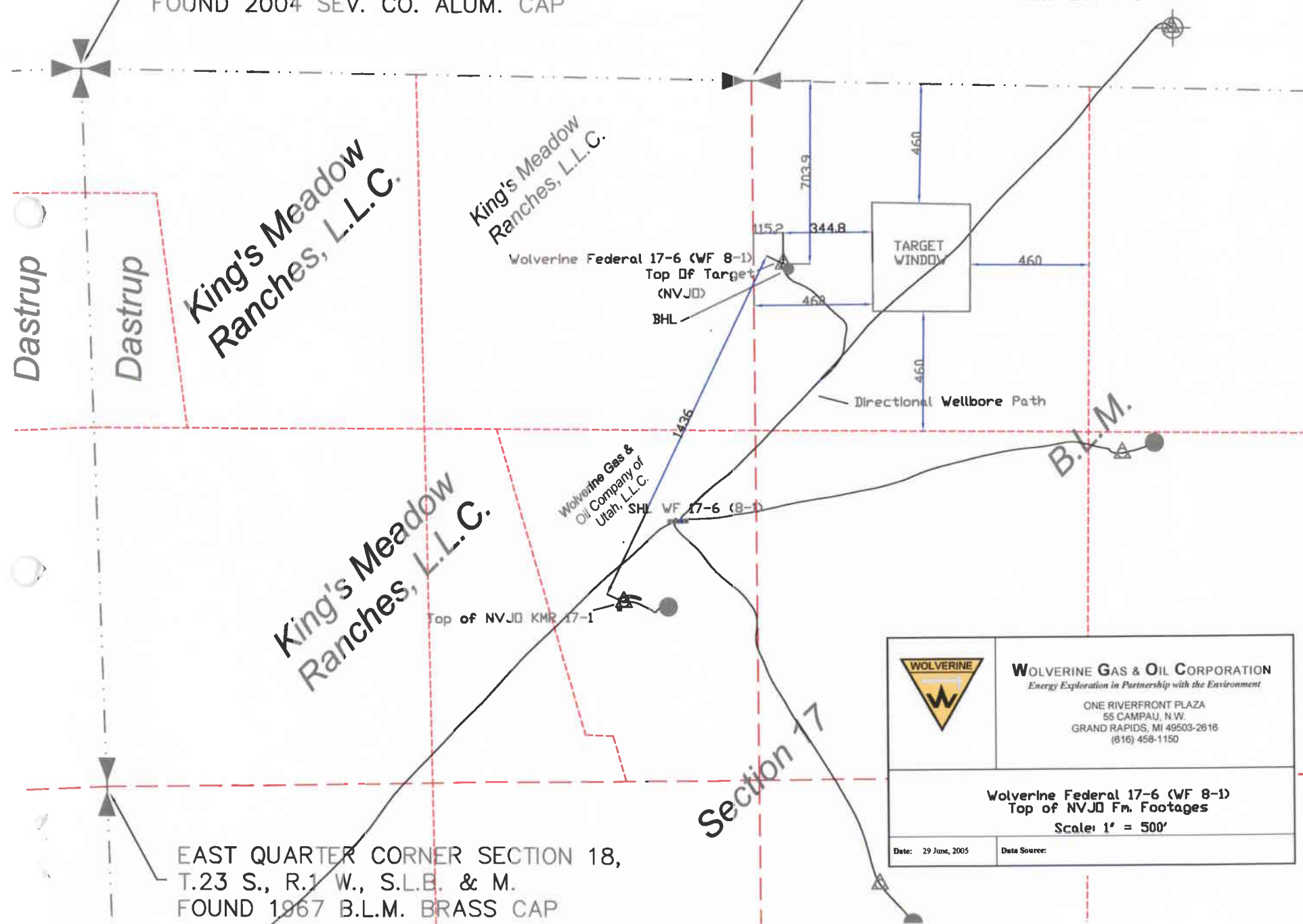
JUL 01 2005

DIV. OF OIL, GAS & MINING

SCALE: 1"=500 ft.

NORTHEAST CORNER SECTION 18,
T.23 S., R.1 W., S.L.B. & M.
FOUND 2004 SEV. CO. ALUM. CAP

NORTH QUARTER CORNER SECTION 17,
T.23 S., R.1 W., S.L.B. & M.
FOUND 1967 B.L.M. BRASS CAP



WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC

DRILLING PROGNOSIS

Kings Meadow Ranches # 17-6 (WF 8-1)
NE NW SEC 17-T23S-R1W
SEVIER CO., UTAH

REVISED - BRIEF DRILLING PLAN FOR SIDETRACK

Due to surface topography constraints, directionally drill a 6850' MD (6640' TVD) test of the Navajo 1 formation on a day work contract basis from Wolverine's present work area known as Drill Pad A-2 (slot C) located in SE NW of Sec 17 T23S – R01W, Sevier Co, UT. This well will utilize the previously abandoned Wolverine Federal 8-1 (API# 43-041-30037). Please refer to the directional drilling plan attached for detailed hole angle, trajectory and target information. Deviation is the primary drilling concern in this area. No abnormal pressure or hydrogen sulfide gas is expected, however, an H2S detector will be utilized. The projected surface and bottomhole locations are to be as follows:

Surface Location: 1680' fnl & 2265' fwl of Sec 17 T23S – R01W
BHL @ top of NVJO1 (5933' TVD) 1038' N & 418' E of SHL – Sec 17 T23S - R01W

20" conductor casing has been set and cemented to surface at 123 ft BGL. 13-3/8" surface csg has been set at 2053' MD (1977' TVD) and cemented to surface in a 17-1/2" hole deviated to 25 deg at 2053' MD (1977' TVD). A 12-1/4" hole, originally drilled to 7824' MD has been successfully plugged back to 2500' in accordance with regulations. The 12-1/4" hole will be sidetracked with downhole motor and bent housing as outlined in the attached directional plan at approximately 2500' (28 deg inclination & 42 deg azimuth – BHL coordinates 511' N & 497' E of SHL). It will then be directionally drilled to +/- 5950' MD (5750' TVD) dropping angle to an approximate 7 deg from vertical. 9-5/8" protective casing will be set from surface to TD & cemented over the lower 1000'. An 8-1/2" hole will then be drilled to +/- 6850' (6640' TVD). 7" production casing will then be run from TD back to surface & cemented to approximately 800' into the 9-5/8" protective casing.

CONFIDENTIAL

EMERGENCY NUMBERS

Sevier Valley Medical Center (435)-896-8271
Medical Helicopter (800)-453-0120
Sheriff Department (435)-896-2600
Fire Department-Richfield, UT (435)-896-5479
Bureau of Land Management (Richfield): (435)-896-1500
Bureau of Land Management (Salt Lake City) (801) 539-4045
Utah Division of Oil, Gas and Mining (Salt Lake City): (801)-538-5340

United States Bureau of Land Management

Contact Al McKee (801) 539-4045 24 hrs prior to spudding

Utah Division of Oil, Gas and Mining

Contact Carol Daniels (801) 538-5284, 24 hrs prior to spudding

GENERAL INFORMATION

OBJECTIVE: Navajo 1 @ 5933' (TVD) **ELEVATION:** 5736' GL (actual) 5753' KB
PROJECTED TOTAL DEPTH: 6850' MD; 6640' TVD
SURFACE LOCATION: 1680' FNL & 2265' FWL
Section 17-23S-1W
COUNTY: Sevier **STATE:** Utah
DIRECTIONS TO LOCATION: From the town of Sigurd, Utah go south
approximately 3.5 miles on Hwy #24 to location on
the left side of the road.

PROPOSED CASING PROGRAM:

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Measured Depth Set
30"	20"	.25 wall	X42	PE welded	123' (set)
17-1/2"	13-3/8"	61#	J-55	LTC	0'-2053' (set)
12-1/4"	9-5/8"	* 47#	N-80	LTC	0'-59500'
8-1/2"	7"	** 26#	N-80	LTC	0' -6850'

* due to availability 47# HCP-110 may be substituted for N80

** due to availability 23# HCP-110 may be substituted for 26# N80

Hole Size	Casing Size	Drift ID, in.	OD of Couplings	Annular Volume in OH, cf/ft	Annular Volume in Csg, cf/ft	Capacity of casing, cf/ft
30"	20"	Conductor	Na			
17-1/2"	13-3/8"	12.259	14.375	.6946	1.0982	.8406
12 1/4"	9-5/8"	8.525	10.625	0.3127	0.4659	0.4340
8-1/2	7"	6.250	7.656	.1268	.1438	.2148

GEOLOGIC FORMATIONS:

Formation	Interval (TVD)	Interval (MD)	Lithology	Prod	Abnormal Psi
Arapien	Surf – 5602'	Surf – 5800'	sh, siltstone, salt, evaporites		
TwinCreek1	5602' - 5933'	5800' - 6135'	Carbonates	X	
Navajo 1	5933' - 6640'	6135' - 6850'	Sandstone w/ minor shale	X	
Total Depth	6640'	6850'			

CONSTRUCTION OF SURFACE LOCATION (EXISTING)

360'x 180' Pad
150'x 100' x 10' Reserve Pit with a 12 mil synthetic liner
96" diameter tin horn cellar, 10' deep.
Flare pit a minimum of 100' from wellhead.

SURFACE HOLE: 120' to 2053' (EXISTING)

Directionally drill a 17-1/2" hole with a PDC bit, mud motor & MWD equipment to approximately 2000' using salt mud system from prior well (make hole to fit 13-3/8" casing). Loss circulation could be a problem in this interval and, if such occurs, begin pumping LCM sweeps. If loss circulation cannot be healed with ± 25 ppb LCM, consider dry drilling (no returns). Maintain hole angle and direction in keeping with the attached directional plan.

PRESSURE CONTROL & SAFETY EQUIPMENT FOR SURFACE HOLE (EXISTING)

Bottom to Top (see attached 2M Diverter diagram)

20" 2M x 20" SOW flange
20" 2M x 20" 2M mud cross w/ (2) 7-1/16" 2M side outlets
one outlet 7-1/16" HCR valve w/ 6" blooie line to mud separator & flare pit
one outlet (blank)
20" 2M Annular Preventer

20" 2M flanged btm drilling nipple w/ fillup line
Upper kelly cock valves with handles available
Safety valves and subs to fit all drill string connections in use
Inside BOP or float sub available

Testing Procedure:

Annular Preventer & HCR Valve

The annular preventer will be pressure tested to 500 psi for a period of ten minutes or until provisions of the test are met, whichever is longer. At a minimum, the pressure test will be performed:

- 1) When the annular is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The annular preventer will be functionally operated once per week. All BOP drills will be recorded in the IADC driller's log.

Accumulator:

The accumulator will have sufficient capacity to open the hydraulically controlled gate valve (if so equipped), close the annular preventer, and retain a minimum of 200 psig above pre-charge on the closing manifold without the use of the closing unit pumps. The reservoir capacity will be double the accumulator capacity, and the fluid level will be maintained at the manufacturer's recommendations. The accumulator shall have two (2) independent power sources to close the preventers. Nitrogen bottles may be one of the independent power sources and, if so, shall maintain a charge equal to the manufacturer's specifications.

MUD PROGRAM FOR SURFACE HOLE (EXISTING)

<u>DEPTH</u>	<u>MUD WEIGHT</u>	<u>TYPE</u>	<u>VISC</u>	<u>FLUID LOSS</u>
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120 -2053'	9.6 – 10.2	Salt mud	40-55	N/C
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Note: Sweep hole every 100 – 200 feet or as needed for hole cleaning. Maintain maximum flowrates for hole cleaning. Use salt gel and FlowZan polymer to maintain properties. Reduce fluid loss with Anco-Phalt and/or Gilsonite for lubricity.

CASING PROGRAM FOR SURFACE HOLE (EXISTING)

<u>DEPTH</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>WT</u>	<u>GRADE</u>	<u>THREAD</u>	<u>REMARKS</u>
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120 - 2053'	13-3/8"	2000'	68#	J-55	BT&C	
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Casing Running Sequence:

guide shoe, 1 jt of 13-3/8" 61# J55 LT&C, Float collar, balance of 13-3/8" 61# J55 LT&C, centralizers as reqd. RU cement co., hold safety meeting, test lines, cement 13-3/8" casing per cement company recommendation and the cementing guide below. Displace with fresh water or mud.

CEMENTING PROGRAM FOR SURFACE HOLE (EXISTING)

Lead:

500 sx hi-fill

Mixed at: 11.0 ppg
Yield: 3.86 ft³/sx

Tail: 450 sx Premium G

Mixed at: 15.8 ppg
Yield: 1.18 ft³/sx

MUST CIRCULATE CEMENT TO SURFACE If the cement does **not** circulate to surface contact the BLM and UDOGM office for further instructions and remedial actions. Top out with premium cement regardless of circulation.

WOC A TOTAL OF 24 HOURS:

Wait 4 hours with the hydrostatic pressure of the displacement fluid in place, then cut off conductor and weld on a 13-5/8" 5M x 13-3/8" SOW casing head w/ MBS spool configured to hang both 9-5/8" and 7" csg strings without nipping down BOPE. NU a 13-5/8" 5M double ram BOP w/ 5M annular and 5M choke manifold rigged to mud/gas separator, mud tanks and flare pit.

PROTECTIVE CASING HOLE: 2053' to 5950'

Trip in the hole with a 12-1/4" bit, mud motor & MWD. Drill float, shoe and 20' of new hole. Perform a formation integrity test to 10.5 ppg mud weight equivalent. Directionally drill a 12-1/4" hole with a PDC and/or a TCI rock bit, mud motor & MWD equipment to approximately 5950' MD using same salt mud system as above. Loss circulation, moving salt, gypsum and anhydrite stringers may be a problem in this interval. Maintain hole angle and azimuth in keeping with the attached directional plan. Protective casing should be set into the top of the Twin Creek formation approximately 100-150'.

PRESSURE CONTROL AND SAFETY EQUIPMENT FOR PROTECTIVE CASING STRING

Bottom to Top (see attached 5M BOP diagram)

13-5/8" 5M x 13-3/8" SOW casing head w/ (2) 2-1/16" SSO's (for 9-5/8")
13-5/8" 5M x 13-5/8" 5M multi-bowl casing spool (for 7")
13-5/8" 5M x 13-5/8" spacer spool
13-5/8" 5M x 13-5/8" 5M mud cross with (2) side outlets:

one outlet 2-1/16" 5M kill line
one outlet 3-1/16" 5M choke line
13-5/8" 5M double ram BOP w/ 5" pipe rams top & CSO rams btm
13-5/8" 5M Annular Preventer
13-5/8" 5M rotating head
Connect BOP to choke manifold with pressure guage
Upper kelly cock valves with handles available
Safety valves and subs to fit all drill string connections in use
Inside BOP or float sub available

Testing Procedure:

Annular Preventer

The annular preventer will be pressure tested to 1500 psi for a period of ten minutes or until provisions of the test are met, whichever is longer. At a minimum, the pressure test will be performed:

- 1) When the annular is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The annular preventer will be functionally operated once per week.

Blowout Preventer

The BOP, choke manifold and related equipment will be pressure tested to 4500 psi, or 70% of the internal yield of the casing. Pressure will be maintained for a period of at least ten minutes or until the requirements of the test are met, whichever is longer. At a minimum the pressure test will be performed:

- 1) When the BOP is initially installed
- 2) Whenever any seal subject to test pressure is broken
- 3) Following related repairs and at 30 day intervals

The pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills will be recorded in the IADC driller's log.

Accumulator:

The accumulator will have sufficient capacity to open the hydraulically controlled gate valve (if so equipped), close all rams plus the annular preventer, and retain a minimum of 200 psig above pre-charge on the closing manifold without the use of the closing unit pumps. The reservoir capacity will be double the accumulator capacity, and the fluid level will be maintained at the manufacturer's recommendations. The accumulator shall have two (2) independent power sources to close the preventers. Nitrogen bottles may be one of the independent power sources and, if so, shall maintain a charge equal to the manufacturer's specifications.

The accumulator pre-charge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six months thereafter. The accumulator pressure will be corrected if the measured pre-charge pressure is found to be above or below the maximum or minimum limits specified in Onshore Oil & Gas Order Number 2 (only nitrogen gas may be used to pre-charge).

Choke Manifold Equipment, Valves and Remote Controls

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration

A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will be maintained in the open position and will be closed only when the power source for the accumulator is inoperative.

Remote controls shall be readily accessible to the driller. Remote controls will be capable of both opening and closing all preventers. Master controls will be at the accumulator and will be capable of opening and closing all preventers and the choke line valve (if so equipped).

The choke manifold and BOP extension rods with hand wheels will be located outside the rig sub structure. The hydraulic BOP closing unit will be located at least twenty-five feet from the well head but readily accessible to the driller.

A flare line will be installed after the choke manifold, extending 100 feet from the center of the drill hole to a separate flare pit.

MUD PROGRAM FOR PROTECTIVE CASING HOLE

<u>DEPTH</u>	<u>MUD WEIGHT</u>	<u>TYPE</u>	<u>VISC</u>	<u>FLUID LOSS</u>
2053' – 5950'	9.8 – 10.2	Salt Mud	36 - 50	20-30cc or less

Maintain a salt mud system as salt and gypsum sections are drilled. If loss circulation becomes a problem use LCM sweeps to control seepage & clean hole.

CASING PROGRAM FOR PROTECTIVE CASING HOLE

<u>DEPTH</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>WT</u>	<u>GRADE</u>	<u>THREAD</u>	<u>REMARKS</u>
0' – TD'	9-5/8"	5950'	* 47#	N-80	LT&C	

Rig up casing tools and run 9-5/8" protective casing as follows:

Float shoe, 2 joint of 9-5/8" * 47.0# N-80 LT&C casing, float collar, 6 centralizers, middle shoe joint and one every other joint for 12 jts, run balance of 9-5/8" 47# N-80

* due to availability 47# HCP-110 may be substituted

CEMENT PROGRAM FOR PROTECTIVE CASING

350 sx 50:50 POZ

Weight: 13.0 ppg

Yield: 1.71 ft³/sx

TOC at ~ 5000'; Calculate cement volume based on gauge hole plus 30% excess.
Displace with mud. Land 9-5/8" csg with casing mandrel. Lay down landing joint.
Clean pits and prepare for next hole section.

PRODUCTION HOLE: 5,950 to 6840'

Trip in the hole with an 8-1/2" insert bit, mud motor & MWD. Drill float, shoe and 20' of new hole.

PRESSURE CONTROL AND SAFETY EQUIPMENT FOR PRODUCTION CASING STRING

Same as Protective String above due to utilization of Multi-Bowl Casing Head Assembly – Land 9-5/8" through BOPE with casing mandrel, release, test & proceed to drilling production hole section – Nipple down & nipple up NOT required – all BOPE remains intact – normal periodic pressure testing remains on schedule

MUD PROGRAM FOR PRODUCTION HOLE

DEPTH	MUD WEIGHT	TYPE	VISC	pH	FLUID LOSS
5950' - 6840'	8.3 – 9.0	LC Polymer	34-50	9.0-10.0	10cc or Less

EVALUATION PROGRAM FOR PRODUCTION HOLE

At TD, circulate and condition hole clean for logs. Short trip to the intermediate casing monitoring well closely. TOH for logs. Run Induction tool as run #1 to determine hole conditions for logging. Adjust tool configurations depending on hole condition.

Mudlogger: From 2000' to total depth.

Electric Logs:

Tool	PCP to TD
SDL/DSN/GR (DSN PCP to surface casing)	Yes
HRI/GR/SP (DLL/MSFL/SP/GR available if brine system)	Yes
EMI	Yes
NMR	Yes

DST: none planned

Cores: none planned

CASING PROGRAM FOR PRODUCTION HOLE

DEPTH	SIZE	LENGTH	WT	GRADE	THREAD	REMARKS
0' - TD'	7"	6840'	* 26#	N-80	LT&C	

* due to availability 23# HCP-110 may be substituted for 26# N-80

Rig up casing tools and run 7" production casing as follows:

Float shoe, 1 joint of 7" 26# N-80 LT&C casing, Float collar, Run balance of 7" 26# N80.

CEMENT PROGRAM FOR PRODUCTION CASING

400 sx (50:50) POZ Premium
2 % Bentonite
Friction reducer, salt & flocele

Weight: 14.35 ppg
Yield: 1.27 ft³/sx

TOC at \pm 4200 ft in 9-5/8" csg

Calculate cement volume based on log caliper \pm 25%. Displace cement w/water.

Hang 85-90% casing weight in slips, ND, cut off, install B-section and night cap. Clean pits and release rig.

SCHEDULE

Location preparation is presently scheduled to begin on or about EXISTING

Drilling operations are anticipated to begin on or about May 15, 2005

end

WOLVERINE GAS & OIL CO. OF UTAH
Kings Meadow Ranches 17-6 (WF 8-1)
Sevier County, Utah



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	2534.00	28.00	41.60	2403.88	511.63	496.92	0.00	0.00	97.23	
2	3635.22	7.71	322.39	3456.00	768.39	625.97	2.50	-163.44	220.11	
3	6134.80	7.71	322.39	5933.00	1033.97	421.40	0.00	0.00	555.35	NVJ01
4	6844.21	7.71	322.39	6636.00	1109.35	363.34	0.00	0.00	650.49	

SITE DETAILS

Pad A-2
T23S R01W Sevier County, Utah
NW/4 SE/4 Sec 17

Water Depth: 0.00
Positional Uncertainty: 0.00
Convergence: -0.28

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Kings Meadow Ranches 17-6 (WF 8-1)	0.00	48.00	6733931.77	1516740.09	38°48'19.460N	111°56'02.273W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Tie On	2534.00	511.63	496.92	Point
NVJ01	5933.00	1033.97	421.40	Point

FIELD DETAILS

Sevier County, Utah

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: Utah, Central Zone
Magnetic Model: igrf2005

System Datum: Mean Sea Level
Local North: True North

Azimuths to True North
Magnetic North: 12.55°

Magnetic Field
Strength: 51942nT
Dip Angle: 64.52°
Date: 5/19/2005
Model: igrf2005

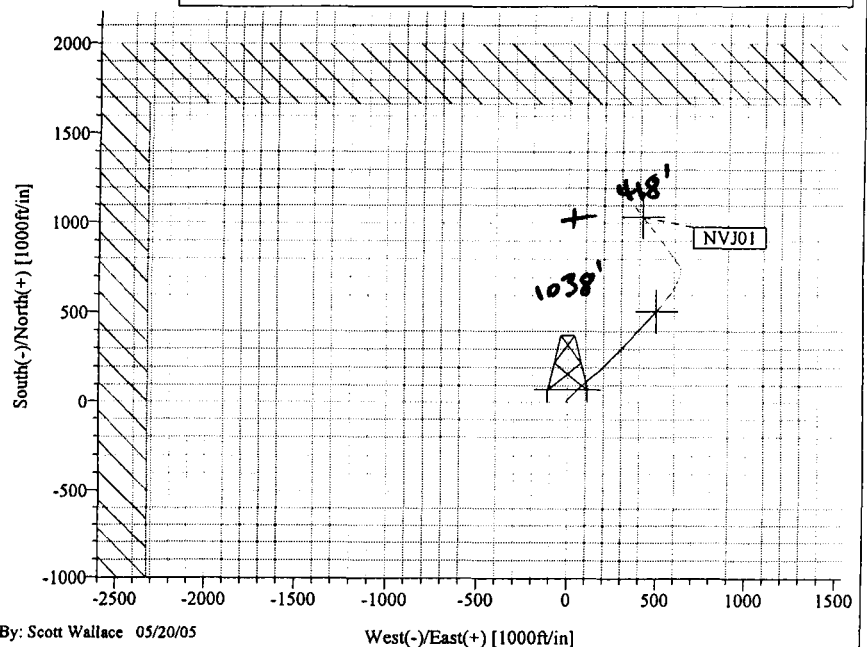
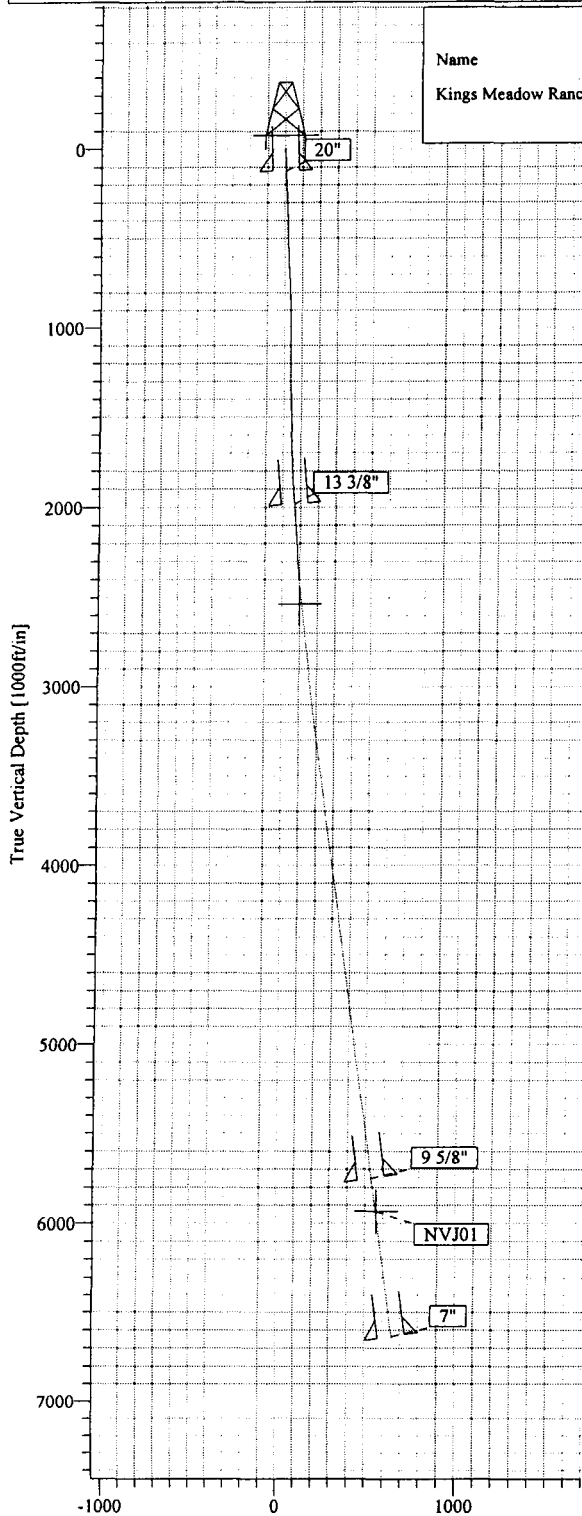
Total Correction: 12.55°

CASING DETAILS

No.	TVD	MD	Name	Size
1	119.98	120.00	20"	20.000
2	1978.59	2053.00	13 3/8"	13.375
3	5750.00	5950.13	9 5/8"	9.625
4	6636.00	6844.21	7"	7.000

FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	5602.00	5800.78	Twin Creek
2	5933.00	6134.80	NVJ01
3	6336.00	6541.48	OWC



Vertical Section at 322.00° [1000ft/in]

Created By: Scott Wallace 05/20/05

West(-)/East(+) [1000ft/in]

Weatherford International

Planning Report

Company: Wolverine Gas & Oil Co of Utah Field: Sevier County, Utah Site: Pad A-2 Well: Kings Meadow Ranches 17-6 (WF Wellpath: 1	Date: 5/20/2005 Co-ordinate(NE) Reference: Well: Kings Meadow Ranches 17-6 (WF 8-1) Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: Well (0.00N,0.00E,322.00Azi) Plan: KMR 17-6
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Field: Sevier County, Utah

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: Utah, Central Zone
Coordinate System: Well Centre
Geomagnetic Model: igrf2005

Site: Pad A-2
 T23S R01W Sevier County, Utah
 NW/4 SE/4 Sec 17

Site Position:	Northing:	ft	Latitude:	
From: Lease Line	Easting:	ft	Longitude:	
Position Uncertainty:	0.00 ft		North Reference:	True
Ground Level:	0.00 ft		Grid Convergence:	-0.28 deg

Well: Kings Meadow Ranches 17-6 (WF

Slot Name:

Well Position:	+N/-S	0.00 ft	Northing:	6733931.77 ft	Latitude:	38 48 19.460 N
	+E/-W	48.00 ft	Easting :	1516740.09 ft	Longitude:	111 56 2.273 W
Position Uncertainty:		0.00 ft				

Wellpath: 1

Current Datum: SITE	Height	0.00 ft	Drilled From: Surface	
Magnetic Data: 5/19/2005			Tie-on Depth:	0.00 ft
Field Strength: 51942 nT			Above System Datum:	Mean Sea Level
Vertical Section: Depth From (TVD)	+N/-S		Declination:	12.55 deg
ft	ft		Mag Dip Angle:	64.52 deg
			+E/-W	Direction
			ft	deg
0.00	0.00		0.00	322.00

Plan: KMR 17-6

Date Composed: 5/16/2005
Version: 1
Tied-to: From: Definitive Path

Principal: No

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
2534.00	28.00	41.60	2403.88	511.63	496.92	0.00	0.00	0.00	0.00	
3635.22	7.71	322.39	3456.00	768.39	625.97	2.50	-1.84	-7.19	-163.44	
6134.80	7.71	322.39	5933.00	1033.97	421.40	0.00	0.00	0.00	0.00	NVJ01
6844.21	7.71	322.39	6636.00	1109.35	363.34	0.00	0.00	0.00	0.00	

Section 1 : Start DLS 2.50 TFO -163.44

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
120.00	1.87	322.50	119.98	1.56	-1.19	1.96	0.00	0.00	0.00	0.00
2053.00	24.72	41.61	1978.59	348.88	342.64	63.97	1.26	1.18	4.09	83.16
2534.00	28.00	41.60	2403.88	511.63	496.92	97.23	0.68	0.68	0.00	-0.10
2600.00	26.42	40.54	2462.58	534.37	516.75	102.95	2.50	-2.39	-1.60	-163.44
2679.12	24.54	39.11	2534.00	560.50	538.56	110.11	2.50	-2.38	-1.81	-162.50
2700.00	24.05	38.70	2553.03	567.19	543.96	112.05	2.50	-2.36	-1.98	-161.21
2800.00	21.70	36.48	2645.16	597.96	567.69	121.69	2.50	-2.35	-2.22	-160.83
2900.00	19.39	33.75	2738.80	626.63	587.91	131.84	2.50	-2.31	-2.72	-158.79
3000.00	17.13	30.33	2833.76	653.15	604.58	142.48	2.50	-2.26	-3.42	-156.23
3100.00	14.95	25.93	2929.86	677.47	617.66	153.58	2.50	-2.19	-4.41	-152.98
3200.00	12.87	20.10	3026.93	699.53	627.12	165.14	2.50	-2.07	-5.83	-148.75
3300.00	10.98	12.19	3124.77	719.30	632.96	177.13	2.50	-1.90	-7.91	-143.09
3400.00	9.36	1.33	3223.21	736.74	635.16	189.51	2.50	-1.61	-10.86	-135.35
3500.00	8.20	346.75	3322.04	751.82	633.71	202.28	2.50	-1.16	-14.57	-124.65
3600.00	7.70	328.97	3421.10	764.50	628.63	215.41	2.50	-0.50	-17.79	-110.25
3635.22	7.71	322.39	3456.00	768.39	625.97	220.11	2.50	0.03	-18.66	-92.63

Weatherford International

Planning Report

Company: Wolverine Gas & Oil Co of Utah
Field: Sevier County, Utah
Site: Pad A-2
Well: Kings Meadow Ranches 17-6 (WF
Wellpath: 1

Date: 5/20/2005 Time: 15:28:32 Page: 2
Co-ordinate(NE) Reference: Well: Kings Meadow Ranches 17-6 (WF 8-1)
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,322.00Azi)
Plan: KMR 17-6

Section 2 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
3700.00	7.71	322.39	3520.20	775.27	620.67	228.800	0.00	0.00	0.00	0.00
3800.00	7.71	322.39	3619.29	785.90	612.48	242.21	0.00	0.00	0.00	0.00
3900.00	7.71	322.39	3718.39	796.52	604.30	255.63	0.00	0.00	0.00	0.00
4000.00	7.71	322.39	3817.49	807.15	596.12	269.04	0.00	0.00	0.00	0.00
4100.00	7.71	322.39	3916.58	817.77	587.93	282.45	0.00	0.00	0.00	0.00
4200.00	7.71	322.39	4015.68	828.40	579.75	295.86	0.00	0.00	0.00	0.00
4300.00	7.71	322.39	4114.78	839.02	571.56	309.27	0.00	0.00	0.00	0.00
4400.00	7.71	322.39	4213.87	849.65	563.38	322.68	0.00	0.00	0.00	0.00
4500.00	7.71	322.39	4312.97	860.27	555.19	336.09	0.00	0.00	0.00	0.00
4600.00	7.71	322.39	4412.07	870.90	547.01	349.51	0.00	0.00	0.00	0.00
4700.00	7.71	322.39	4511.16	881.52	538.82	362.92	0.00	0.00	0.00	0.00
4800.00	7.71	322.39	4610.26	892.15	530.64	376.33	0.00	0.00	0.00	0.00
4900.00	7.71	322.39	4709.35	902.77	522.46	389.74	0.00	0.00	0.00	0.00
5000.00	7.71	322.39	4808.45	913.40	514.27	403.15	0.00	0.00	0.00	0.00
5100.00	7.71	322.39	4907.55	924.02	506.09	416.56	0.00	0.00	0.00	0.00
5200.00	7.71	322.39	5006.64	934.65	497.90	429.97	0.00	0.00	0.00	0.00
5300.00	7.71	322.39	5105.74	945.28	489.72	443.39	0.00	0.00	0.00	0.00
5400.00	7.71	322.39	5204.84	955.90	481.53	456.80	0.00	0.00	0.00	0.00
5500.00	7.71	322.39	5303.93	966.53	473.35	470.21	0.00	0.00	0.00	0.00
5600.00	7.71	322.39	5403.03	977.15	465.17	483.62	0.00	0.00	0.00	0.00
5700.00	7.71	322.39	5502.13	987.78	456.98	497.03	0.00	0.00	0.00	0.00
5800.00	7.71	322.39	5601.22	998.40	448.80	510.44	0.00	0.00	0.00	0.00
5800.78	7.71	322.39	5602.00	998.48	448.73	510.55	0.00	0.00	0.00	0.00
5900.00	7.71	322.39	5700.32	1009.03	440.61	523.85	0.00	0.00	0.00	0.00
5950.13	7.71	322.39	5750.00	1014.35	436.51	530.58	0.00	0.00	0.00	0.00
6000.00	7.71	322.39	5799.42	1019.65	432.43	537.27	0.00	0.00	0.00	0.00
6100.00	7.71	322.39	5898.51	1030.28	424.24	550.68	0.00	0.00	0.00	0.00
6134.80	7.71	322.39	5933.00	1033.97	421.40	555.35	0.00	0.00	0.00	0.00

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
6200.00	7.71	322.39	5997.61	1040.90	416.06	564.090	0.00	0.00	0.00	0.00
6300.00	7.71	322.39	6096.71	1051.53	407.88	577.50	0.00	0.00	0.00	0.00
6400.00	7.71	322.39	6195.80	1062.15	399.69	590.91	0.00	0.00	0.00	0.00
6500.00	7.71	322.39	6294.90	1072.78	391.51	604.32	0.00	0.00	0.00	0.00
6541.48	7.71	322.39	6336.00	1077.18	388.11	609.89	0.00	0.00	0.00	0.00
6600.00	7.71	322.39	6394.00	1083.40	383.32	617.74	0.00	0.00	0.00	0.00
6700.00	7.71	322.39	6493.09	1094.03	375.14	631.15	0.00	0.00	0.00	0.00
6800.00	7.71	322.39	6592.19	1104.65	366.95	644.56	0.00	0.00	0.00	0.00
6844.21	7.71	322.39	6636.00	1109.35	363.34	650.49	0.00	0.00	0.00	0.00

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
120.00	1.87	322.50	119.98	1.56	-1.19	1.96	0.00	0.00	0.00	20"
2053.00	24.72	41.61	1978.59	348.88	342.64	63.97	1.26	1.18	4.09	13 3/8"
2534.00	28.00	41.60	2403.88	511.63	496.92	97.23	0.68	0.68	0.00	MWD
2600.00	26.42	40.54	2462.58	534.37	516.75	102.95	2.50	-2.39	-1.60	MWD
2679.12	24.54	39.11	2534.00	560.50	538.56	110.11	2.50	-2.38	-1.81	Tie On
2700.00	24.05	38.70	2553.03	567.19	543.96	112.05	2.50	-2.36	-1.98	MWD
2800.00	21.70	36.48	2645.16	597.96	567.69	121.69	2.50	-2.35	-2.22	MWD
2900.00	19.39	33.75	2738.80	626.63	587.91	131.84	2.50	-2.31	-2.72	MWD
3000.00	17.13	30.33	2833.76	653.15	604.58	142.48	2.50	-2.26	-3.42	MWD
3100.00	14.95	25.93	2929.86	677.47	617.66	153.58	2.50	-2.19	-4.41	MWD
3200.00	12.87	20.10	3026.93	699.53	627.12	165.14	2.50	-2.07	-5.83	MWD
3300.00	10.98	12.19	3124.77	719.30	632.96	177.13	2.50	-1.90	-7.91	MWD
3400.00	9.36	1.33	3223.21	736.74	635.16	189.51	2.50	-1.61	-10.86	MWD
3500.00	8.20	346.75	3322.04	751.82	633.71	202.28	2.50	-1.16	-14.57	MWD
3600.00	7.70	328.97	3421.10	764.50	628.63	215.41	2.50	-0.50	-17.79	MWD

Weatherford International

Planning Report

Company: Wolverine Gas & Oil Co of Utah
 Field: Sevier County, Utah
 Site: Pad A-2
 Well: Kings Meadow Ranches 17-6 (WF)
 Wellpath: 1

Date: 5/20/2005
 Co-ordinate(NE) Reference: Well: Kings Meadow Ranches 17-6 (WF 8-1)
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,322.00Azi)
 Plan: KMR 17-6

Page: 3

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
3635.22	7.71	322.39	3456.00	768.39	625.97	220.11	2.50	0.03	-18.66	MWD
3700.00	7.71	322.39	3520.20	775.27	620.67	228.80	0.00	0.00	0.00	MWD
3800.00	7.71	322.39	3619.29	785.90	612.48	242.21	0.00	0.00	0.00	MWD
3900.00	7.71	322.39	3718.39	796.52	604.30	255.63	0.00	0.00	0.00	MWD
4000.00	7.71	322.39	3817.49	807.15	596.12	269.04	0.00	0.00	0.00	MWD
4100.00	7.71	322.39	3916.58	817.77	587.93	282.45	0.00	0.00	0.00	MWD
4200.00	7.71	322.39	4015.68	828.40	579.75	295.86	0.00	0.00	0.00	MWD
4300.00	7.71	322.39	4114.78	839.02	571.56	309.27	0.00	0.00	0.00	MWD
4400.00	7.71	322.39	4213.87	849.65	563.38	322.68	0.00	0.00	0.00	MWD
4500.00	7.71	322.39	4312.97	860.27	555.19	336.09	0.00	0.00	0.00	MWD
4600.00	7.71	322.39	4412.07	870.90	547.01	349.51	0.00	0.00	0.00	MWD
4700.00	7.71	322.39	4511.16	881.52	538.82	362.92	0.00	0.00	0.00	MWD
4800.00	7.71	322.39	4610.26	892.15	530.64	376.33	0.00	0.00	0.00	MWD
4900.00	7.71	322.39	4709.35	902.77	522.46	389.74	0.00	0.00	0.00	MWD
5000.00	7.71	322.39	4808.45	913.40	514.27	403.15	0.00	0.00	0.00	MWD
5100.00	7.71	322.39	4907.55	924.02	506.09	416.56	0.00	0.00	0.00	MWD
5200.00	7.71	322.39	5006.64	934.65	497.90	429.97	0.00	0.00	0.00	MWD
5300.00	7.71	322.39	5105.74	945.28	489.72	443.39	0.00	0.00	0.00	MWD
5400.00	7.71	322.39	5204.84	955.90	481.53	456.80	0.00	0.00	0.00	MWD
5500.00	7.71	322.39	5303.93	966.53	473.35	470.21	0.00	0.00	0.00	MWD
5600.00	7.71	322.39	5403.03	977.15	465.17	483.62	0.00	0.00	0.00	MWD
5700.00	7.71	322.39	5502.13	987.78	456.98	497.03	0.00	0.00	0.00	MWD
5800.00	7.71	322.39	5601.22	998.40	448.80	510.44	0.00	0.00	0.00	MWD
5800.78	7.71	322.39	5602.00	998.48	448.73	510.55	0.00	0.00	0.00	Twin Creek
5900.00	7.71	322.39	5700.32	1009.03	440.61	523.85	0.00	0.00	0.00	MWD
5950.13	7.71	322.39	5750.00	1014.35	436.51	530.58	0.00	0.00	0.00	9 5/8"
6000.00	7.71	322.39	5799.42	1019.65	432.43	537.27	0.00	0.00	0.00	MWD
6100.00	7.71	322.39	5898.51	1030.28	424.24	550.68	0.00	0.00	0.00	MWD
6134.80	7.71	322.39	5933.00	1033.97	421.40	555.35	0.00	0.00	0.00	NVJ01
6200.00	7.71	322.39	5997.61	1040.90	416.06	564.09	0.00	0.00	0.00	MWD
6300.00	7.71	322.39	6096.71	1051.53	407.88	577.50	0.00	0.00	0.00	MWD
6400.00	7.71	322.39	6195.80	1062.15	399.69	590.91	0.00	0.00	0.00	MWD
6500.00	7.71	322.39	6294.90	1072.78	391.51	604.32	0.00	0.00	0.00	MWD
6541.48	7.71	322.39	6336.00	1077.18	388.11	609.89	0.00	0.00	0.00	OWC
6600.00	7.71	322.39	6394.00	1083.40	383.32	617.74	0.00	0.00	0.00	MWD
6700.00	7.71	322.39	6493.09	1094.03	375.14	631.15	0.00	0.00	0.00	MWD
6800.00	7.71	322.39	6592.19	1104.65	366.95	644.56	0.00	0.00	0.00	MWD
6844.21	7.71	322.39	6636.00	1109.35	363.34	650.49	0.00	0.00	0.00	7"

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	Latitude Deg Min Sec			Longitude Deg Min Sec		
Tie On		2534.00	511.63	496.92	6734440.98	1517239.49	38	48	24.517 N	111	55	55.996 W
-Plan out by 64.21 at		2534.00	560.50	538.56	6734489.65	1517281.37	38	48	25.000 N	111	55	55.470 W
NVJ01		5933.00	1038.00	418.00	6734967.73	1517163.12	38	48	29.719 N	111	55	56.993 W
-Plan out by 5.27 at		5933.00	1033.97	421.40	6734963.69	1517166.50	38	48	29.679 N	111	55	56.950 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
120.00	119.98	20.000	26.000	20"
2053.00	1978.59	13.375	17.500	13 3/8"
5950.13	5750.00	9.625	12.250	9 5/8"

Weatherford International

Planning Report

Company: Wolverine Gas & Oil Co of Utah
Field: Sevier County, Utah
Site: Pad A-2
Well: Kings Meadow Ranches 17-6 (WF
Wellpath: 1

Date: 5/20/2005 **Time:** 15:28:32 **Page:** 4
Co-ordinate(NE) Reference: Well: Kings Meadow Ranches 17-6 (WF 8-1)
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,322.00Azi)
Plan: KMR 17-6

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
6844.21	6636.00	7.000	8.500	7"

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
5800.78	5602.00	Twin Creek		0.00	0.00
6134.80	5933.00	NVJ01		0.00	0.00
6541.48	6336.00	OWC		0.00	0.00

PRESSURE CONTROL SYSTEM SCHEMATIC

Prepared by:
EXACT Engineering, Inc
Tulsa, OK (918) 599-9400

2M Diverter Stack --- to be utilized while drilling holes for surface casing thru upper Arapien formation section

Operator:

Wolverine Gas & Oil Co. of Utah, LLC

Well name and number

Kings Meadow Ranches # 17-6 (WF 8-1)

Max. anticipated surface pressure 800 psi

Annular B.O.P. 20", 2M W.P.

B.O.P.
--- Manual
X Hydraulic
--- Sour Trim

B.O.P. none Rams none "na" W.P.
(Pipe/Blind)

B.O.P. none Rams _____ " _____ W.P.
(Pipe/Blind)

Check Valve none " _____ W.P.

Valve none " _____ W.P.

Valve blind flange _____ W.P.

Valve 7-1/16" 2M "HCR"

Valve none

Flow
Kill Line Manifold

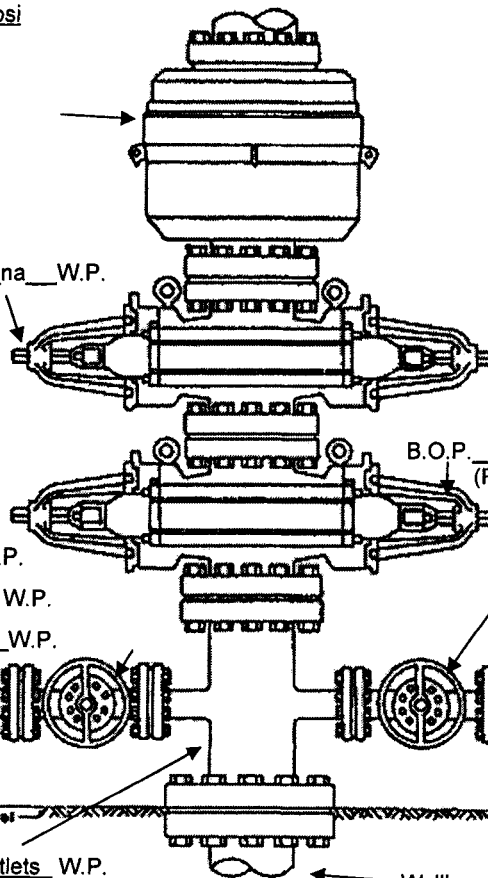
Manifold Line

Ground level

Line 6 " _____ W.P.

Spool 20" 2M x 20" 2M x 7-1/16" 2M outlets W.P.

Wellhead 20" 2M x 20' SOW flange



PRESSURE CONTROL SYSTEM SCHEMATIC

Prepared by:
EXACT Engineering, Inc
Tulsa, OK (918) 599-9400

5M BOP Stack --- to be utilized while drilling holes for protective and production casings thru lower Arapien, Twin Creek & Navajo intervals

Operator:

Wolverine Gas & Oil Co. of Utah, LLC

Well name and number

Kings Meadow Ranches # 17-6 (WF 8-1)

Max. anticipated surface pressure 3000 psi

Annular B.O.P. 13-5/8" - 5M WP

B.O.P. 5" pipe Rams 13-5/8" - 5M W.P.
(Pipe/Blind)

B.O.P.
Manual
☒ Hydraulic
Sour Trim

Check Valve 2-1/16" 5M WP

Valve 2-1/16" 5M WP

Valve 2-1/16" 5M WP

B.O.P. blind Rams 13-5/8" - 5M W.P.
(Pipe/Blind)

Valve 3-1/16" 5M WP

Valve 3-1/16" 5M WP

Kill Line Manifold

Manifold Line

Line 3-1/16" 5M WP

Spool 13-5/8" 5M x 13-5/8" 5M x 2-1/16" x 3-1/16" 5M outlets

Wellhead 13-5/8" 5M x 13-5/8" 5M multibowl
w/ 13-5/8" 5M x 13-3/8" 5M SOW csg head

Ground level

From: "Helene Bardolph" <HBardolph@wolvgas.com>
To: "Diana Whitney" <dianawhitney@utah.gov>
Date: 7/8/2005 6:13:48 AM
Subject: Missing attachment form previous communicaiton (6-29-05)

Diane:

RE: Wolverine Federal 17-6 (Wolverine Federal 8-1, Section 17, R23S, R01W)

I am sorry that I neglected to attach the necessary document to the letters John Vrona sent to you last week. I have now attached a copy of that document to this e mail (it is the same document for both letters). I will also send you two copies of this document by mail.

I'm sorry for any confusion or delay this may have caused.

Helene Bardolph

Wolverine Gas and Oil Corp.

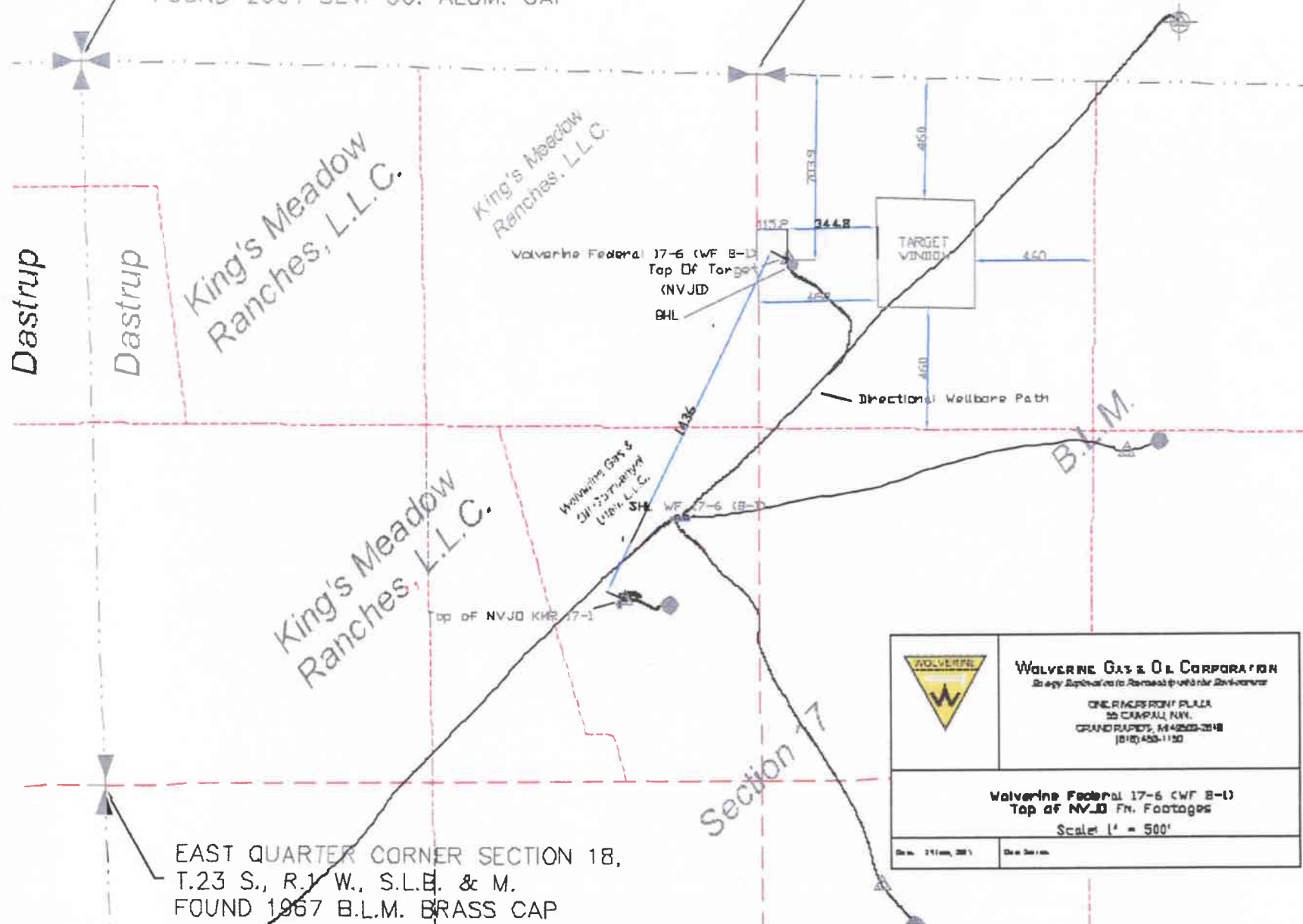
616-458-1150

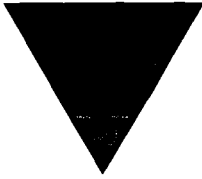
CC: "John Vrona" <jvrona@wolvgas.com>

SCALE: 1"=500 ft.

NORTHEAST CORNER SECTION 18,
T.23 S., R.1 W., S.L.B. & M.
FOUND 2004 SEV. CO. ALUM. CAP

NORTH QUARTER CORNER SECTION 17,
T.23 S., R.1 W., S.L.B. & M.
- FOUND 1967 B.L.M. BRASS CAP





WOLVERINE GAS AND OIL COMPANY
of Utah, LLC

Energy Exploration in Partnership with the Environment

July 13, 2005

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 W. N. Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Wolverine Federal 8-1 Well
Completion Report

Dear Diana:

Enclosed please find the Completion Report (form #8 – abandoned well) for the captioned well. Attached to the report are the following documents:

- Electric & Mechanical Log List
- Geologic Report
- Directional Survey
- Logs

Please keep this report and all attachments confidential. If you have any questions or concerns, please feel free to contact me.

Sincerely,

Helene Bardolph for John Vrona

RECEIVED

JUL 19 2005

JV/hb

DIV. OF OIL, GAS & MINING

enclosures

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>										5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-73528	
b. TYPE OF WORK: NEW WELL <input checked="" type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP-EN <input type="checkbox"/> RE-ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER <input type="checkbox"/>										6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR: Wolverine Gas and Oil Company of Utah, LLC										7. UNIT or CA AGREEMENT NAME Wolverine Fed Exploration Unit	
3. ADDRESS OF OPERATOR: 55 Campau NW CITY Grand Rapids STATE MI ZIP 49503										8. WELL NAME and NUMBER: Wolverine Federal #8-1	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1680' FNL & 2265' FWL, Sec 17,T23S,R01W AT TOP PRODUCING INTERVAL REPORTED BELOW: None AT TOTAL DEPTH: 232' FSL & 991' FEL, Sec 8, T23S, R01W										9. API NUMBER: 4304130037	
10. FIELD AND POOL, OR WILDCAT Exploratory Area										11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNW 16 23S 1W	
12. COUNTY Sevier										13. STATE UTAH	
14. DATE SPURRED: 4/16/2005		15. DATE T.D. REACHED: 5/13/2005		16. DATE COMPLETED: 5/13/2005		ABANDONED <input checked="" type="checkbox"/> READY TO PRODUCE <input type="checkbox"/>		17. ELEVATIONS (DF, RKB, RT, GL): 5752/5753/5753/5736			
18. TOTAL DEPTH: MD 7,824 TVD 7,227		19. PLUG BACK T.D.: MD 2,500 TVD 2,374		20. IF MULTIPLE COMPLETIONS, HOW MANY? *		21. DEPTH BRIDGE MD PLUG SET: TVD					
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) See attached list						23. WAS WELL CORED? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (Submit copy)					
24. CASING AND LINER RECORD (Report all strings set in well)											
HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED		
20"	concrete		0	121							
17.5	13 3/4" J55	61#	0	2,057	2,008	Prem 1,050	518	surface			
25. TUBING RECORD											
SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)			
26. PRODUCING INTERVALS						27. PERFORATION RECORD					
FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS			
(A) None								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>		
(B)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>		
(C)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>		
(D)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>		
28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.											
DEPTH INTERVAL	DIV. OF OIL, GAS & MINING										
None											
29. ENCLOSED ATTACHMENTS:										30. WELL STATUS:	
<input checked="" type="checkbox"/> ELECTRICAL/MECHANICAL LOGS <input checked="" type="checkbox"/> GEOLOGIC REPORT <input type="checkbox"/> DST REPORT <input checked="" type="checkbox"/> DIRECTIONAL SURVEY										P & A	
<input type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION <input type="checkbox"/> CORE ANALYSIS <input type="checkbox"/> OTHER: _____											

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
None				Arapien Twin Creek	0 6.984

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) John P. Vrona

TITLE Manager of Geology

SIGNATURE

DATE 7/8/2005

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

Electric & Mechanical Log List

**Wolverine Federal 8-1
1680' FNL & 2265' FWL, Sec 17, T23S, R1W
Sevier County, Utah
API# 43-041-30037**

- ✓ Mudlog
- ✓ Directional Plot
- ✓ Dual Spaced Neutron Spectral Density
- ✓ Dual Spaced Neutron Spectral Density – TVD
- ✓ Dual Laterolog MSFL
- ✓ Dual Laterolog – TVD

Wolverine Federal 8-1

Sevier County, Utah Sec 16 T23S R01W



Weatherford®
DIRECTIONAL SERVICES

MD	INCL	AZM	N-S	E-W	TVD	VS	DLS
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
173.00	2.70	322.50	3.23	-2.48	172.94	0.57	1.56
203.00	3.60	323.50	4.55	-3.47	202.89	0.82	3.01
233.00	4.50	321.10	6.22	-4.77	232.82	1.10	3.05
266.00	5.40	345.00	8.73	-5.99	265.70	2.05	6.75
296.00	5.40	355.50	11.50	-6.46	295.56	3.69	3.29
326.00	5.00	4.10	14.21	-6.48	325.44	5.61	2.92
357.00	4.70	29.30	16.67	-5.76	356.33	7.87	6.88
388.00	5.50	38.20	18.94	-4.22	387.21	10.57	3.62
419.00	6.80	39.30	21.53	-2.14	418.03	13.88	4.21
448.00	8.30	43.80	24.37	0.40	446.78	17.68	5.56
478.00	9.80	49.30	27.60	3.83	476.40	22.39	5.77
509.00	11.10	48.80	31.29	8.08	506.89	28.00	4.20
539.00	12.30	47.90	35.33	12.62	536.27	34.07	4.05
569.00	13.10	47.40	39.77	17.49	565.53	40.65	2.69
600.00	13.80	45.80	44.73	22.73	595.68	47.85	2.56
630.00	14.70	42.60	50.03	27.87	624.76	55.24	3.99
689.00	16.00	41.20	61.66	38.30	681.65	70.84	2.29
750.00	17.00	43.80	74.42	50.01	740.14	88.15	2.04
811.00	16.70	46.30	86.91	62.52	798.52	105.83	1.29
874.00	16.70	46.10	99.44	75.58	858.87	123.92	0.09
964.00	16.70	47.00	117.22	94.36	945.07	149.76	0.29
1056.00	16.90	51.10	134.64	114.43	1033.15	176.25	1.31
1150.00	16.80	51.20	151.73	135.65	1123.11	203.31	0.11
1245.00	17.10	53.50	168.64	157.58	1213.98	230.74	0.77
1339.00	16.80	50.00	185.59	179.10	1303.90	257.91	1.13
1434.00	16.10	46.30	203.52	199.14	1395.02	284.74	1.33
1528.00	16.70	43.50	222.32	217.86	1485.19	311.27	1.06
1622.00	17.30	43.70	242.22	236.81	1575.09	338.75	0.64
1717.00	17.50	46.30	262.30	256.90	1665.74	367.15	0.85
1812.00	19.50	46.50	283.09	278.73	1755.83	397.27	2.11
1906.00	22.10	45.10	306.37	302.64	1843.69	430.64	2.82
2063.00	24.90	41.40	352.02	345.42	1987.66	493.19	2.02
2125.00	25.90	43.30	371.67	363.34	2043.67	519.77	2.08
2189.00	26.30	43.70	392.09	382.72	2101.15	547.92	0.68
2252.00	27.80	45.10	412.56	402.77	2157.25	576.57	2.59
2346.00	29.10	44.90	444.22	434.44	2239.90	621.34	1.39
2440.00	30.00	42.40	477.77	466.42	2321.67	667.69	1.62
2534.00	28.00	41.60	511.63	496.92	2403.88	713.22	2.17
2629.00	27.50	43.50	544.21	526.82	2487.96	757.42	1.07
2724.00	27.80	42.80	576.38	556.97	2572.11	801.50	0.47
2818.00	28.30	43.80	608.54	587.29	2655.07	845.69	0.73
2913.00	29.60	41.70	642.32	618.49	2738.20	891.64	1.74



Weatherford®

DIRECTIONAL SERVICES

MD	INCL	AZM	N-S	E-W	TVD	VS	DLS
3007.00	31.50	40.90	678.21	650.01	2819.15	939.35	2.07
3102.00	32.10	38.90	716.62	682.11	2899.89	989.25	1.28
3196.00	32.40	40.90	755.09	714.29	2979.39	1039.24	1.18
3291.00	33.00	47.50	791.82	750.04	3059.36	1090.50	3.80
3385.00	33.30	48.20	826.31	788.15	3138.06	1141.81	0.52
3480.00	32.80	48.40	860.78	826.83	3217.69	1193.50	0.54
3574.00	32.50	49.50	894.08	865.07	3296.83	1244.05	0.71
3669.00	31.70	50.00	926.70	903.60	3377.31	1294.32	0.89
3764.00	31.20	50.20	958.50	941.62	3458.35	1343.64	0.54
3858.00	30.50	51.90	988.80	979.10	3539.06	1391.52	1.19
3952.00	29.70	50.70	1018.27	1015.90	3620.38	1438.32	1.06
4046.00	28.00	46.80	1048.13	1050.01	3702.72	1483.52	2.70
4141.00	28.00	41.60	1080.08	1081.07	3786.61	1528.08	2.57
4235.00	28.00	38.00	1113.97	1109.31	3869.61	1572.05	1.80
4330.00	28.10	39.10	1148.90	1137.15	3953.46	1616.48	0.55
4424.00	28.80	41.90	1182.94	1166.23	4036.11	1661.15	1.60
4520.00	28.50	40.90	1217.46	1196.67	4120.35	1707.11	0.59
4614.00	26.90	43.80	1249.76	1226.08	4203.58	1750.76	2.23
4708.00	26.00	45.10	1279.66	1255.39	4287.74	1792.63	1.14
4802.00	25.10	46.00	1308.05	1284.33	4372.55	1833.16	1.04
4899.00	25.70	44.70	1337.29	1313.92	4460.17	1874.76	0.84
4993.00	26.90	44.90	1366.84	1343.27	4544.44	1916.41	1.28
5087.00	27.40	45.30	1397.12	1373.65	4628.08	1959.30	0.57
5182.00	27.90	45.10	1428.19	1404.93	4712.23	2003.38	0.54
5276.00	28.40	44.40	1459.68	1436.15	4795.11	2047.73	0.64
5371.00	28.80	43.20	1492.50	1467.63	4878.52	2093.20	0.74
5465.00	29.30	41.90	1526.13	1498.49	4960.70	2138.82	0.86
5560.00	28.00	38.90	1560.79	1528.02	5044.07	2184.24	2.04
5654.00	26.90	37.70	1594.79	1554.88	5127.49	2227.32	1.31
5748.00	25.10	36.60	1627.62	1579.77	5211.97	2268.19	1.98
5843.00	23.40	41.40	1657.95	1604.26	5298.59	2307.00	2.74
5937.00	21.10	42.80	1684.37	1628.11	5385.59	2342.56	2.51
6032.00	20.80	42.60	1709.34	1651.14	5474.31	2376.51	0.32
6127.00	20.20	41.00	1734.13	1673.32	5563.29	2409.74	0.86
6221.00	20.00	39.60	1758.77	1694.22	5651.57	2441.96	0.55
6315.00	17.10	39.30	1781.85	1713.22	5740.67	2471.75	3.09
6410.00	14.90	41.60	1801.80	1730.18	5831.99	2497.86	2.41
6504.00	12.60	44.20	1818.19	1745.35	5923.29	2520.19	2.53
6599.00	12.00	40.50	1833.12	1758.99	6016.11	2540.40	1.04
6693.00	11.90	39.60	1848.02	1771.51	6108.07	2559.81	0.22
6807.00	11.30	38.80	1865.78	1786.00	6219.75	2582.64	0.54
6901.00	11.00	39.30	1879.90	1797.45	6311.97	2600.73	0.34
7006.00	10.30	41.70	1894.66	1810.04	6415.16	2620.09	0.79
7100.00	9.20	47.00	1906.06	1821.13	6507.80	2635.99	1.51
7195.00	8.60	57.40	1915.07	1832.67	6601.67	2650.50	1.80
7290.00	7.40	70.90	1920.90	1844.44	6695.75	2662.90	2.34



Weatherford®
DIRECTIONAL SERVICES

MD	INCL	AZM	N-S	E-W	TVD	VS	DLS
7384.00	6.40	98.30	1922.12	1855.34	6789.09	2671.41	3.62
7478.00	5.20	117.50	1919.40	1864.31	6882.62	2675.74	2.41
7574.00	5.10	116.30	1915.50	1871.99	6978.23	2678.33	0.15
7669.00	4.80	121.20	1911.57	1879.18	7072.88	2680.56	0.55
7764.00	4.90	127.00	1907.07	1885.82	7167.54	2681.99	0.53
PROJECTION TO BIT AT TD-TOH TO SIDETRACK							
7824.00	4.96	130.66	1903.84	1889.83	7227.31	2682.49	0.53

WOLVERINE GAS & OIL COPORATION

**WOLVERINE FEDERAL #8-1
SE/SE SEC.8.T235, R1W
SEVIER CO., UT**

GEOLOGIC REPORT
ON
WOLVERINE FEDERAL #8-1
SE/SE SEC.8.T235, R1W
SEVIER CO., UT
FOR
WOLVERINE GAS & OIL CORPORATION
ONE RIVER FRONT PLAZA
55 CAMPAU NW
GRAND RAPIDS, MI 49503-2616

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WELL DATA SUMMARY

WELL NAME	WOLVERINE FEDERAL #8-1
OPERATOR	WOLVERINE GAS & OIL CORP
SURFACE LOCATION	SE/SE SEC.8.T23S,R1W SEVIER COUNTY, UT
API #	043 - 041- 30037
WELL CLASSIFICATION	DEVELOPMENT COVENANT FIELD
DRILLING CONTRACTOR	UNIT #111
WELL LICENSE #	043 - 041 - 30037
ELEVATION - GROUND LEVEL KELLY BUSHING	5736' 5753'
SPUD DATE	4-16-05
SURFACE CASING	2053' OF 13 3/8
INTERMEDIATE CASING	NIL
PRODUCTION CASING	NIL
HOLE SIZE	17 ½'', 12 ¼''
SAMPLE INTERVAL	2054 - 7820
GAS DETECTION	2054 - 7820
OPEN HOLE LOGS	GR, CAL, SP, DLL, CNL-FDC, DIP METER
MUD TYPE	SATURATED SALT MUD, FLOZAN
WELL STATUS	DRY HOLE - PLUGGED AND ABANDONED

FORMATION TOPS

Kelly Bushing 5753'

Formation Prog.(tvd) Spl. Top (md) Spl. Top(tvd) Log Top(md) Log Top(tvd) Sub Sea

Arapien Surface

Twin Creek 5872 6986 5477 6986 6477 -624

FORMATION EVALUATION

**WOLVERINE GAS & OIL CORPORATION
WOLVERINE FEDERAL #8-1
SE/SE SEC.8,T235, R1W
SEVIER COUNTY, UT**

The Wolverine Federal #8-1 was the sixth well drilled in the Covenant Field. Decollement Consulting began sample coverage at 2054' under 2053' of 13 3/8" surface casing. Gas detection was rigged up on Unit Rig #111 on 4-23-05. Crews caught 30' lagged samples to total depth(7820'). Intermediate hole was drilled to 7820 and casing not set. E-logs were run at 7557' to determine that the pay zone would come in below the oil/water contact. After logging the well was drilled deeper until the rig reached it's over pull coming off bottom to make connections.

CONCLUSION: Dry Hole-Plugged and abandon.

BIT RECORD

WELL NAME

KINGS MEADOW RANCHES #8-1

LOCATION

SE/SE SEC. 8, T235, R1W

SURFACE CASING

20531' OF 13 3/8

SPUD DATE

4-16-05

TD DATE

3-16-05

BIT	1	2	3	4	5	6
SIZE	17 ½	12 ¼	12 ¼	12 ¼	12 ¼	12 ¼
MAKE	STC	RTC	SEC	REED	REED	SEC
TYPE	X74	HP34AKPR	EBXS165	HP53AIKPR	HP53A	EB55X205
SERIAL #	G02085	B73515	10627405	PB4765	8876L	10683245
JETS	3X28	3X22	3X24	3X24	3X24	3X24
OUT @	2054	3911	4850	6264	7050	7557
FOOTAGE	1934	1857	939	1414	706	507
HOURS	112	75 ½	56 ½	108 ½	34 ½	43
ACC HRS	112	187 ½	244	352 ½	387	430 ½
WT	40	35	25	48	30	50
RPM	30	30	0/30	0/30	0/50	0/30
PP	1100	1870	1950	2010	2000	1910
MUD WT	10.0	12.0	10.4	10.4	10.4	10.2
VIS	36	32	33	32	31	31

BIT	7
SIZE	12 ¼
MAKE	STC
TYPE	CK15BUCP

SERIAL#	MR4626
JETS	3X24
OUT @	7824
FOOTAGE	267
HOURS	31 ½
ACC. HRS	31 ½
WT	50
RPM	0/30
PP	2020
MUD WT	12.4
VIS	33

DAILY DRILLING SUMMARY

DATE	DEPTH	PROG.	HRS	MUD	VIS	WL	PH	ACTIVITY
4-16-05	210	190	6 ½	WATER				SPUD, DRILL
4-17-05	626	416	23 ½	9.1	31			DRILL
4-18-05	934	308	16 ½	9.2	31			DRILL, TRIP MWD

4-19-05	1346	412	23 ½	9.2	31	DRILL
4-20-05	1675	329	23	9.5	30	DRILL
4-21-05	1960	285	21	9.7	32	DRILL, Pump repair
4-22-05	2054	94	9 ½	10.0	36	Wiper trip, Drill, POOH
4-23-05	2054	NIL	NIL	10.0	36	Run & cement 13 3/8 "
4-24-05	2280	226	6 ½	9.5	32	Press,test,pickup tools,Drill
4-25-05	3020	740	23 ½	9.7	32	DRILL
4-26-05	3338	3/8	15 ½	9.8	32	DRILL, TRIP MWD
4-27-05	3835	497	23 ½	10.0	32	DRILL
4-28-05	4031	196	15	10.1	32	TRIP MWD, DRILL
4-29-05	4465	343	23 ½	10.1	32	DRILL
4-30-05	4839	374	23	10.3	32	DRILL
5-01-05	4965	126	10 ½	10.4	33	DRILL, TRIP BIT
5-02-05	5345	380	23 ½	10.6	32	DRILL
5-03-05	5665	320	23 ½	10.5	32	DRILL
5-04-05	5991	326	23 ½	10.6	33	DRILL
5-05-05	6220	229	23 ½	10.4	30	DRILL
5-06-05	6310	90	8 ½	10.7	33	DRILL, TRIP BIT
5-07-05	6892	852	20 ½	10.6	32	DRILL, WIPER TRIP
5-08-05	7050	158	11	10.4	31	DRILL, TRIP MWD
5-09-05	7336	826	21 ½	10.4	32	DRILL
5-10-05	7557	221	17 ½	10.4	35	DRILL, CIRRR FOR LOGS
5-11-05	7557	NIL	NIL	10.6	31	LOGGING
5-12-05	7705	148	16	10.2	31	RIH, DRILL
5-13-05	7824	119	15 ½	10.2	32	DRILL, POOH
5-14-05	7824	NIL	NIL	10.6	33	PLUGGING BACK

DEVIATION SURVEYS

DEPTH	INCLINATION	DIRECTION
1906.00	22.10	45.10

2063.00	24.90	41.40
2125.00	25.90	43.30
2189.00	26.30	43.70
2252.00	27.80	45.10
2346.00	29.10	44.90
2440.00	30.00	42.40
2534.00	28.00	41.60
2534.00	28.00	41.60
2629.00	27.50	43.50
2724.00	27.80	42.80
2818.00	28.30	43.80
2913.00	29.60	41.70
2913.00	29.60	41.70
3007.00	31.50	40.90
3291.00	33.00	47.50
3385.00	33.30	48.20
3480.00	32.80	48.40
3574.00	32.50	49.50
3574.00	32.50	49.50
3669.00	31.70	50.00
3764.00	31.20	50.20
3858.00	30.50	51.90
3858.00	30.50	51.90
3952.00	29.70	50.70
4046.00	28.00	46.80
DEPTH	INCLINATION	DIRECTION
4141.00	28.00	41.60
4141.00	28.00	41.60
4235.00	28.00	38.00
4330.00	28.10	39.10
4424.00	28.80	41.90
4520.00	28.50	40.90

4520.00	28.50	40.90
4614.00	26.90	43.80
4708.00	26.00	45.10
4802.00	25.10	46.00
4899.00	25.70	44.70
4993.00	36.90	44.90
5087.00	27.40	45.30
5087.00	27.40	45.30
5182.00	27.90	45.10
5276.00	28.40	44.40
5371.00	28.80	43.20
5465.00	29.30	41.90
5560.00	28.00	38.90
5654.00	26.90	37.70
5748.00	25.10	36.60
5748.00	25.10	36.60
5843.00	53.40	41.40
5937.00	21.10	42.80
6032.00	20.80	42.60
6032.00	20.80	42.60
6127.00	20.20	41.00
6127.00	20.20	41.00
6221.00	20.00	39.60
6410.00	14.90	41.60
6504.00	12.60	44.20
DEPTH	INCLINATION	DIRECTION
6599.00	12.00	40.50
6693.00	11.90	39.60
6807.00	11.30	38.80
6901.00	11.00	39.30
7009.00	10.30	41.70
7100.00	9.20	47.00

7195.00	8.60	57.40
7290.00	7.40	70.90
7384.00	6.40	98.30
7384.00	6.40	86.30
7478.00	5.20	117.50
7574.00	5.10	116.30
7669.00	4.80	121.20
7764.00	4.90	127.00

LITHOLOGIC DESCRIPTIONS

**Wolverine Gas & Oil Corporation
Wolverine Federal #8-1
SE/SE Sec.8,T23S,R1W
Sevier County, Utah**

- 2030-60 CEMENT-70%
LIMESTONE-70% Light to medium gray, argillaceous, lithographic, mudstone.
SHALE-10% Red brown, blocky, silty, firm, slightly calcareous.
- 2060-90 SHALE-40% Light gray, limy, argillaceous, earthy, red brown, blocky, silty, firm, slightly calcareous.
LIMESTONE-60% Light to medium gray, argillaceous, earthy, lithographic, mudstone.
- 2090-2120 SHALE-40% Light gray, limy, argillaceous, earthy, red brown, blocky, silty, firm, slightly calcareous.
ANHYDRITE--20% White, light gray, chalky, crystalline, greasy texture in part, chalky in part.
LIMESTONE-40% Light medium gray, mottled, silty, very fine to microcrystalline, argillaceous, lithographic, mudstone.
- 2120-50 SHALE-80% Red brown, tan, gray green, earthy, slightly calcareous, soft to firm blocky.
SILTSTONE--20% Light gray, White, aren, limy, blocky, argillaceous.
- 2150-80 SHALE-10% Red brown, tan, grayish green, earthy, slightly calcareous, soft to firm blocky.
LIMESTONE-50% Light to medium gray, mottled, very fine to microcrystalline, dense in part, earthy in part, mudstone.
ANHYDRITE--40% White, salt cast textured, fracture in fill.
- 2180-2210 LIMESTONE-90% Light to medium gray, mottled, very fine to micro crystalline, dense in parts, earthy in parts, mudstone, earthy, lithographic, mudstone.
ANHYDRITE--10% White, salt cast textured, fracture in fill.
- 2210-40 LIMESTONE-100% 90% lithographic, 10% soft chalky.
- 2210-70 LIMESTONE-100% 90% lithographic, 10% soft chalky.
- 2270-2300 LIMESTONE-100% 90% lithographic, 10% soft chalky, mudstone.

- 2300-30 LIMESTONE-100% 90% lithographic, 10% soft chalky.
- 2330-60 LIMESTONE-100% Light to medium gray, earthy, lithographic, argillaceous, mudstone (90%) 10% white to light gray, soft chalky, trace anhydrite fracture in fill.
- 2360-90 LIMESTONE-100% Light to medium gray, earthy, lithographic, argillaceous, mudstone (90%) 10% white to light gray, soft chalky, trace anhydrite fracture in fill.
- 2390-2420` LIMESTONE-100% Light to medium gray, earthy, lithographic, argillaceous, mudstone

(95%) 5% white to light gray, soft chalky, abundant anhydrite fracture in fill.

- 2420-50 Limestone-100% Light to medium gray, earthy, lithographic, argillaceous, mudstone (80%) 20% white to light gray, soft chalky, trace anhydrite fracture in fill.
- 2450-80 Limestone-100% Light to medium gray, earthy, lithographic, argillaceous, mudstone (90%) 10% White to Light gray, soft chalky, trace anhydrite fracture in fill.
- 2480-2510 Limestone-100% Light to medium gray, earthy, lithographic, argillaceous, mudstone (70%) 30% white to light gray, soft chalky, trace anhydrite fracture in fill.
- 2510-40 Limestone-80% Light to medium gray, earthy, lithographic, argillaceous, mudstone (70%) 30% white to light gray, soft chalky, trace anhydrite fracture in fill.
Siltstone-20% White, arenaceous, soft to firm, slightly calcareous, anhydrite
- 2540-70 Limestone-80% Light to medium gray, earthy, lithographic, argillaceous, mudstone (70%) 30% white to light gray, soft chalky, trace anhydrite fracture in fill.
Siltstone-10% White, arenaceous, soft to firm, slightly calcareous, anhydrite.
Anhydrite-10% White, light gray, crystalline, salt cast, chalky.
- 2570-2600 Limestone-90% Light to medium gray, argillaceous, earthy, light, mudstone, white, soft in part.
Anhydrite-10% White, light gray, crystalline, salt cast, chalky.
- 2600-30 Limestone-60% 90% Light to medium gray, argillaceous, earthy, light, mudstone, white, soft in part.
Siltstone-30% White, Light gray, arenaceous, limy, anhydritic.
Anhydrite-10% White, soft, chalky, abundant red orange potash.
- 2630-60 Shale- 10% Red brown, abundant salt casts, red to orange potash, blocky, firm.
Limestone-90% Light to medium gray, light gray brown, very fine to microcrystalline, dense, lithographic, mudstone.

- 2660-90 Shale-30% Gray green, waxy, soft to firm, smooth texture, red brown, abundant salt casts, red to orange potash, blocky, firm.
Limestone-70% Light to medium gray, light gray brown, very fine to microcrystalline, dense, lithographic, mudstone.
- 2690-2720 Shale- 30% Red brown, grayish green, waxy, soft to firm, smooth texture, red brown, abundant salt casts, red to orange potash, blocky, firm.
Siltstone-10% White, light gray, arenaceous, slightly calcareous, anhydrite.
Limestone- 70% waxy, soft to firm, smooth texture, red brown, abundant salt casts,

red to orange potash, blocky, firm.

- 2720-50 SHALE-40% Red brown, grayish green, waxy, soft to firm, smooth texture, red brown, abundant salt casts, red to orange potash, blocky, firm, abundant red orange potash, salt dis solution casts.
SILTSTONE-20% White, light gray, arenaceous, slightly calcareous, anhydrite.
LIMESTONE-40% Light to medium gray, light gray brown, very fine to microcrystalline, dense, lithographic, mudstone.
- 2750-80 SHALE-40% Gray green, red brown, tan, smooth, fine, blocky, slightly calcareous.
SILTSTONE-30% White, light gray, arenaceous, firm, limy, anhydrite.
LIMESTONE- 0% Light to medium gray, lithographic, mudstone.
- 2780-2810 SHALE-30% Red brown, Light gray, limy, blocky, silty.
SILTSTONE-40% Light grayish brown, arenaceous, argillaceous, calcareous.
LIMESTONE-30% Light to medium gray, blocky, lithographic, mudstone.
- 2810-40 SHALE-20% Red brown, Light gray, limy, blocky, silty.
SILTSTONE-40% Light grayish brown, arenaceous, argillaceous, calcareous.
LIMESTONE-40% Light to medium gray, blocky, lithographic, mudstone.
- 2840-70 LIMESTONE-80% Light to medium gray, blocky, lithographic, mudstone.
SILTSTONE-20% Light grayish brown, arenaceous argillaceous, calcareous.
- 2870-2900 LIMESTONE-100% Light to medium gray, argillaceous, earthy, lithographic, crystalline, dense, silty in parts, soft chalky in part, trace anhydrite fracture fill.
- 2900-30 LIMESTONE-100% Light to medium gray, argillaceous, earthy, lithographic, crystalline, dense, silty in part, soft chalky in part, trace anhydrite fracture fill.
- 2930-60 LIMESTONE-100% Light to medium gray, argillaceous, earthy, lithographic, crystalline, dense, silty in parts, soft chalky in part, trace anhydrite fracture fill.
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- 2960-90 LIMESTONE-100% Light to medium gray, argillaceous, earthy, lithographic, crystalline, dense, silty in part, soft chalky in part, trace anhydrite fracture fill.
- 2990-3020 LIMESTONE-100% Light to medium gray, argillaceous, earthy, lithographic, crystalline, dense, silty in part, soft chalky in part, trace anhydrite fracture fill.
- 3020-50 LIMESTONE-100% Light to medium gray, argillaceous, earthy, lithographic, crystalline, dense, silty in part, soft chalky in part, trace anhydrite fracture fill, 5% white anhydrite and calcite fracture in fill.
- 3050-80 SHALE-10% Red brown, gray to green, blocky, silty.

SILTSTONE-30% White, light gray, arenaceous, limy, anhydritic.

LIMESTONE-60% Light to medium gray, argillaceous, earthy, lithographic, crystalline, dense, silty in part, soft chalky in part, trace anhydrite fracture fill, 5% white anhydrite and calcite fracture in fill.

3080-3110 SHALE-10% Red brown, gray to green, blocky, silty.

SILTSTONE-20% White, light gray, arenaceous, limy, anhydritic.

LIMESTONE-70% Light to medium gray, argillaceous, earthy, lithographic, crystalline, dense, silty in part, soft chalky in part, trace anhydrite fracture fill, 5% white anhydrite and calcite fracture in fill.

3110-40 SHALE-10% Red brown, gray to green, blocky, silty.

SILTSTONE-60% White, light gray, arenaceous, limy, anhydritic.

LIMESTONE-30% Light to medium gray, argillaceous, earthy, lithographic, crystalline, dense, silty in parts, soft chalky in parts, trace anhydrite fracture fill, 5% white anhydrite and calcite fracture in fill.

3140-70 SILTSTONE-50% White, light gray, arenaceous, limy, anhydritic.

LIMESTONE-50% Light to medium gray, argillaceous, earthy, lithographic, crystalline, dense, silty in part, soft chalky in part, trace anhydrite fracture fill, 5% white anhydrite and calcite fracture in fill.

3170-3200 LIMESTONE-100% Light to medium gray brown, very fine to microcrystalline, dense, argillaceous, earthy, lithographic, mudstone, 10% soft, chalky, trace gray green shale.

3200-30 LIMESTONE-100% Light to medium gray brown, very fine to micro crystalline, dense, argillaceous, earthy, lithographic, mudstone, 10% soft, chalky, trace grayish green shale.

3230-60 LIMESTONE-100% Light to medium gray brown, very fine to micro crystalline, dense, argillaceous, earthy, lithographic, mudstone, 10% soft, chalky, trace grayish green shale.

3260-90 LIMESTONE-100% Light to medium gray brown, very fine to micro crystalline, dense, argillaceous, earthy, lithographic, mudstone, 10% soft, chalky, trace gray green shale, abundant white, sucrose, crystalline, anhydrite and calcite

3290-3320 LIMESTONE-100% Light to medium gray brown, very fine to micro crystalline, dense, argillaceous, earthy, lithographic, mudstone, 10% soft, chalky, trace grayish green shale, abundant White, sucrose, crystalline, anhydrite and calcite

3320-50 LIMESTONE-100% Light to medium gray brown, very fine to micro crystalline, dense, argillaceous, earthy, lithographic, mudstone, 10% soft, chalky, trace grayish green shale, abundant white, sucrose, crystalline, anhydrite and calcite.

- 3350-80** **LIMESTONE-100%** Light to medium gray brown, very fine to microcrystalline, dense, argillaceous, earthy, lithographic, mudstone, 10% soft, chalky, trace grayish green shale, abundant white, sucrose, crystalline, anhydrite and calcite.
- 3380-3410** **LIMESTONE-70%** Light to medium gray, very fine to microcrystalline, lithographic, mudstone.
SILTSTONE-30% Light gray, light gray brown, arenaceous, limy, firm.
- 3410-40** **LIMESTONE-70%** Light to medium gray, very fine to microcrystalline, lithographic, mudstone.
SILTSTONE-30% Light gray, light grayish brown, arenaceous, limy, firm.
- 3440-70** **LIMESTONE-100%** Light to medium gray brown, microcrystalline, dense, lithographic, mudstone abundant white chalky, crystalline, anhydritic.
- 3470-3500** **LIMESTONE- 100%** Light to medium gray brown, microcrystalline, dense, lithographic, mudstone, abundant white chalky, crystalline, anhydrite, mottled, abundant anhydrite fracture in fill.
- 3500-30** **SHALE-10%** Red brown, blocky, firm, slightly calcareous, gray green, blocky, smooth.
LIMESTONE-90% Light to medium gray brown, microcrystalline, dense, lithographic, mudstone abundant white chalky, crystalline, anhydrite.
- 3530-60** **SHALE- 30%** Red brown, blocky, firm, silty, gray green, blocky, smooth, abundant salt casts.
LIMESTONE- 30% Light to medium gray brown, crystalline, dense, lithographic, mudstone.
SANDSTONE 40% White, clear, quartzose, firm to medium grained, sub angular to rounded, fair to poorly sorted.
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- 3560-90** **SHALE-10%** Red brown, blocky, firm, silty, gray green, blocky, smooth, abundant salt casts.
LIMESTONE-80% Light to medium gray, mottled, sandy in parts, crystalline, dense, lithographic, mudstone.
ANHYDRITE-10% White, sucrosic, crystalline, soft to firm.
- 3590-3620** **SHALE-10%** Red brown, blocky, firm, silty, gray green, blocky, smooth, abundant salt casts.
LIMESTONE-70% Light to medium gray, mottled, sandy in parts, crystalline, dense, lithographic, mudstone.
ANHYDRITE-20% White, sucrosic, crystalline, soft to firm.
- 3620-50** **SILTSTONE-10%** White, arenaceous, argillaceous, limy, anhydritic.

LIMESTONE-90% Light to medium gray, medium to dark gray, gray brown, argillaceous, earthy, lithographic, mudstone, crystalline in part, chalky in part, abundant calcite fracture in fill.

- 3650-80** **SHALE-20%** Red brown, silty, blocky, slightly calcareous, grayish green.
SANDSTONE- 80% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, unconsolidated.
- 3680-3710** **SHALE-30%** Red brown, silty, blocky, slightly calcareous, grayish green.
SANDSTONE -70% White, clear, quartzose, firm to medium grained, sub angular to rounded, fair to poorly sorted, unconsolidated.
- 3710-40** **SHALE-30%** Red brown, silty, blocky, slightly calcareous, grayish green.
SANDSTONE -50% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, unconsolidated.
LIMESTONE-20% Light to medium gray, very fine to microcrystalline, dense, earthy, lithographic, mudstone.
- 3740-70** **LIMESTONE-100%** Light to medium gray, very fine to microcrystalline, dense, earthy, lithographic, mudstone.
- 3770-3800** **LIMESTONE-100%** Light to medium gray, very fine to microcrystalline, mottled, lithographic, mudstone.
- 3800-30** **SHALE-10%** Red brown, blocky, silty
LIMESTONE-80% Light to medium gray, grayish brown, argillaceous, earthy, lithographic, mudstone, 10% soft, chalky.
ANHYDRITE-10% White, soft, chalky.
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- 3830-60** **LIMESTONE-90%** Light to medium gray, grayish brown, argillaceous, earthy, lithographic, mudstone, 10% soft, chalky.
ANHYDRITE-10% White, soft, chalky.
- 3860-90** **LIMESTONE-90%** Light to medium gray, grayish brown, argillaceous, earthy, lithographic, mudstone, 10% soft, chalky.
ANHYDRITE-10% White, soft, chalky.
- 3890-3920** **SHALE-10%** Red brown, light gray, slightly calcareous, silty, firm.
SILTSTONE-20% Light gray, soft to firm, slightly calcareous, anhydritic, arenaceous, blocky.
LIMESTONE-70% Light to medium gray, very fine to micro crystalline, dense, mottled, argillaceous, earthy, lithographic, mudstone.

- 3920-50** SHALE-10% Red brown, light gray, slightly calcareous, silty, firm.
SILTSTONE-10% White, arenaceous, anhydritic.
LIMESTONE-70% Light to medium gray, crystalline, argillaceous, dense, lithographic, mudstone.
ANHYDRITE-10% White, sucrosic, chalky.
- 3950-80** LIMESTONE-90% Light to medium gray, crystalline, argillaceous, dense, lithographic, mudstone.
ANHYDRITE-10% White, sucrosic, chalky.
- 3980-4010** SHALE-30% Red brown, silty, firm, slightly calcareous, light gray, soft, chalky, limy.
LIMESTONE-30% Light to medium gray, crystalline, argillaceous, dense, lithographic, mudstone.
SANDSTONE-40% Light red, red orange, white, clear, quartzose, fine to medium grained, fair to poorly sorted, sub angular to rounded, unconsolidated.
- 4010-40** SHALE-30% Varied in color, red brown, light gray, white, silty, blocky, firm, calcareous.
SANDSTONE-70% Light red, Red orange, White, clear, quartzose, fine to medium gray, fine to poorly sorted, sub angular to rounded, unconsolidated.
- 4040-70** SHALE-10% Red brown, Light gray, White, silty, blocky, firm, calcareous.
LIMESTONE- 90% Light to medium gray, argillaceous, lithographic, mudstone.
- 4070-4100** LIMESTONE-100% 70% Light to medium gray, lithographic, mudstone. 30% white, light gray soft, chalky mudstone.
- 4100-30** LIMESTONE-100% 70% Light to medium gray, lithographic, mudstone, 30% white, light gray soft, chalky mudstone, abundant, white, calcite and anhydrite.
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- 4130-60** LIMESTONE-90% 70% Light to medium gray, lithographic, mudstone, 30% white, light gray soft, chalky mudstone, abundant, white, calcaite and anhydrite.
ANHYDRITE-10% White, soft, chalky.
- 4160-90** LIMESTONE-90% 80% Light gray, lithographic, mudstone, 20% soft, chalky,
ANHYDRITE-10% White, soft, chalky.
- 4190-4220** LIMESTONE-100% Light gray, lithographic, mudstone, 20% soft, chalky.
- 4220-50** LIMESTONE-100% Light gray, lithographic, mudstone, 20% soft, chalky,
- 4250-80** LIMESTONE-100% Light gray, lithographic, mudstone, 20% soft, chalky,
- 4280-4310** LIMESTONE-100% Light gray, lithographic, mudstone, 20% soft, chalky, abundant anhydrite fracture fill.

- 4310-40 **LIMESTONE-100% Light gray, lithographic, mudstone, 20% soft, chalky, abundant anhydrite fracture fill.**
- 4340-70 **LIMESTONE-100% Light gray, lithographic, mudstone, 20% soft, chalky, abundant anhydrite fracture fill.**
- 4370-4400 **LIMESTONE-90% Light to medium gray, very fine to microcrystalline, lithographic, mudstone.**
ANHYDRITE-10% White, sucrosic texture, chalky, soft to firm.
- 4400-30 **LIMESTONE-80% Crystalline, 50% soft, chalky.**
SILTSTONE-20% Light gray to white, arenaceous, argillaceous, soft to firm, limy.
- 4430-60 **LIMESTONE-70% Crystalline, 50% soft, chalky.**
SILTSTONE-20% Light gray to white, arenaceous, argillaceous, soft to firm, limy.
ANHYDRITE-10% White, sucrosic texture, chalky, soft to firm.
- 4460-90 **LIMESTONE-100% Light to medium gray, microcrystalline, dense, lithographic, mudstone.**
- 4490-4520 **LIMESTONE-90% Light to medium gray, microcrystalline, dense, lithographic, mudstone.**
ANHYDRITE-10% White, sucrosic texture, chalky, soft to firm.
- 4520-50 **LIMESTONE-100% Light to medium gray, microcrystalline, dense, lithographic, mudstone.**

- 4580-4610 **LIMESTONE-70% Light to medium gray brown, crystalline, dense, lithographic, mudstone.**
ANHYDRITE-20% White, soft, chalky.
SILTSTONE-10% White, chalky, anhydritic.
- 4610-40 **LIMESTONE-70% Light to medium gray, crystalline, lithographic, mudstone.**
ANHYDRITE-10% White, soft, chalky.
SILTSTONE-20% White, arenaceous, anhydritic.
- 4640-70 **SHALE-10% Red brown, silty, firm.**
LIMESTONE-70% Light to medium gray, very fine to microcrystalline, lithographic, mudstone.
ANHYDRITE-20% White, soft, chalky, silty.
- 4670-4700 **SHALE-10% Red brown, silty, blocky, firm, light gray green, soft, smooth, waxy.**
LIMESTONE-80% Light to medium gray, very fine to microcrystalline, lithographic,

mudstone.

ANHYDRITE-10% White, soft, chalky, silty.

- 4700-30** **SHALE-40% Red brown, silty, firm, slightly calcareous, light gray green , red brown, silty, blocky, firm, light gray green, soft, smooth, waxy.**
LIMESTONE-50% Light to medium gray, very fine to microcrystalline, lithographic, mudstone.
ANHYDRITE-10% White, soft, chalky, silty.
- 4730-60** **SHALE-10% Red brown, silty, firm, slightly calcareous, light gray green , red brown, silty, blocky, firm, light gray green, soft, smooth, waxy.**
LIMESTONE-80% Light gray brown, tan, microcrystalline, dense, firm to hard, mudstone.
ANHYDRITE-10% White, soft, chalky, silty.
- 4760-90** **SHALE-10% Red brown, silty, firm, slightly calcareous, light gray green , red brown, silty, blocky, firm, light gray green, soft, smooth, waxy.**
LIMESTONE-80% Light gray brown, tan, microcrystalline, dense, firm to hard, mudstone.
ANHYDRITE-10% White, soft, chalky, silty.
- 4790-4820** **SHALE-10% Red brown, silty, firm, slightly calcareous, light gray green , red brown, silty, blocky, firm, light gray green, soft, smooth, waxy.**
LIMESTONE-80% Light gray brown, tan, microcrystalline, dense, firm to hard, mudstone.
ANHYDRITE-10% White, soft, chalky, silty.

- 4820-50** **LIMESTONE-90% Light gray brown, tan, microcrystalline, dense, firm to hard, mudstone.**
ANHYDRITE-10% White, soft, chalky, silty.
- 4850-80** **LIMESTONE-90% Light to medium gray brown, crystalline, dense, lithographic, mudstone.**
ANHYDRITE-10% White, chalky, crystalline, sucrosic.
- 4880-4910** **LIMESTONE-100% Light to medium gray brown, crystalline, dense, lithographic, mudstone, abundant calcite and anhydrite fracture fill.**
- 4910-40** **LIMESTONE-100% Light to medium gray brown, crystalline, dense, lithographic, mudstone, abundant calcite and anhydrite fracture fill.**
- 4940-70** **LIMESTONE-100% Light to medium gray brown, crystalline, dense, lithographic, mudstone, abundant calcite and anhydrite fracture fill, 10% soft , chalky.**

- 4970-5000** Limestone-100% Light to medium gray brown, crystalline, dense, lithographic, mudstone, abundant calcite and anhydrite fracture fill, 30% soft chalky abundant fracture fill.
- 5000-30** Limestone-100% Light to medium gray brown, crystalline, dense, lithographic, mudstone, abundant calcite and anhydrite fracture fill, 10% soft chalky, abundant fracture fill.
- 4030-60** Limestone-100% Light to medium gray brown, crystalline, dense, lithographic, mudstone, abundant calcite and anhydrite fracture fill, 10% soft chalky, abundant fracture fill.
- 5060-90** Limestone-100% Light to medium gray, medium to dark gray, argillaceous, lithographic, mudstone, 10% soft, chalky, abundant calcite and anhydrite fracture in fill.
- 5090-5120** Limestone-100% Medium to dark gray, crystalline, dense, lithographic, mudstone.
- 5120-50** Limestone-100% Medium to dark gray, crystalline, dense, lithographic, mudstone, 20% light gray to white, soft, chalky.
- 5150-80** Limestone-80% Medium to dark gray, crystalline, dense, lithographic, mudstone, 20% light gray to white, soft, chalky.
Siltstone- 20% White, light gray, arenaceous, limy, anhydrite, firm.

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- 5180-5210** Limestone-90% Medium to dark gray, crystalline, dense, lithographic, mudstone, 20% light gray to white, soft, chalky.
Siltstone- 10% White, light gray, arenaceous, limy, anhydritic, firm.
- 5210-40** Limestone-100% Light to medium gray brown, very fine to micro crystalline, silty, lithographic, mudstone.
- 5240-70** Limestone-100% Light to medium gray brown, very fine to microcrystalline, silty, lithographic, mudstone.
- 5270-5300** Shale-20% White, chalky, limy, silty.
Siltstone-10% White, Light gray, arenaceous, limy, soft to firm.
Limestone-70% Light to medium gray brown, very fine to microcrystalline, silty, lithographic, mudstone.
- 5300-30** Siltstone-10% White, light gray, arenaceous, limy, soft to firm.
Limestone-90% Light to medium gray brown, very fine to microcrystalline, silty, lithographic, mudstone .

- 5330-60** SHALE-10% White, chalky, soft, limy.
LIMESTONE- 90% Light to medium gray brown, very fine to micro crystalline, dense, lithographic, mudstone
- 5360-90** SHALE-30% White, chalky, soft, limy
LIMESTONE- 70% Light to medium gray brown, very fine to microcrystalline, dense, lithographic, mudstone.
- 5390-5420** SHALE-20% White, chalky, soft, limy.
LIMESTONE-80% Light to medium gray brown, very fine to microcrystalline, dense, lithographic, mudstone .
- 5420-50** SHALE- 30% White, chalky, soft, limy.
LIMESTONE- 70% Light to medium gray brown, very fine to microcrystalline, dense, lithographic, mudstone.
- 5450-80** SHALE- 10% White, light gray, earthy, chalky, limy, soft to firm.
LIMESTONE- 90% Light to medium gray brown, medium to dark gray brown, microcrystalline, dense, firm to hard, lithographic, mudstone.
- 5480-5510** SHALE- 30% White, Light gray, earthy, chalky, limy, soft to firm.
LIMESTONE- 70% Light to medium gray brown, medium to dark gray brown, microcrystalline, dense, firm to hard, lithographic, mudstone.

- 5510-40** LIMESTONE-100% Light to medium gray brown, microcrystalline, dense, firm to hard, lithographic, mudstone, 10% white, light gray, soft to firm, argillaceous, earthy, grades to limy shale.
- 5540-70** LIMESTONE-100% Light to medium gray brown, microcrystalline, dense, firm to hard, lithographic, mudstone, 10% white, light gray, soft to firm, argillaceous, earthy, grades to limy shale, abundant white, calcite and anhydrite fracture in fill.
- 5570-5600** LIMESTONE100% Light to medium gray brown, microcrystalline, dense, firm to hard, lithographic, mudstone, 10% white, light gray, soft to firm, argillaceous, earthy, grades to limy shale, abundant white, calcite and anhydrite fracture infill.
- 5600-30** LIMESTONE- 100% Light gray, white, very fine to fine crystalline, sucrosic texture, light to medium gray brown, microcrystalline, dense, hard, 10% white, light gray, soft, chalky, abundant white calcite.
- 5630-60** LIMESTONE-100% Light gray, white, very fine to fine crystalline, sucrosic texture, light to medium gray brown, microcrystalline, dense, hard, 10% white, light gray, soft, chalky,

abundant white calcite.

SILTSTONE-30% White, arenaceous, argillaceous, firm, limy, anhydritic.

- 5660-90 LESTONE-70% Light to medium gray, mottled, white, argillaceous, lithographic, mudstone.**
SILTSTONE-20% White, light gray, white, arenaceous, argillaceous, firm, limy, anhydritic.
ANYDRITE-10% White, soft, chalky.
- 5690-5720 LESTONE-80% Light to medium gray, mottled, white, argillaceous, lithographic, mudstone.**
ANYDRITE-20% White, soft, chalky.
- 5720-50 LESTONE-90% Light to medium gray, mottled, White, argillaceous, lithographic, mudstone.**
SILTSTONE-10% White, light gray, white, arenaceous, argillaceous, firm, limy, anhydritic.
- 5750-80 LESTONE-70% Light to medium gray, mottled, white, argillaceous, lithographic, mudstone.**
SILTSTONE- 20% White, arenaceous, anhydritic, firm, chalky.
ANYDRITE- 10% White, soft, chalky.
- 5780-5810 LESTONE- 100% Light to medium gray, gray brown, crystalline, lithographic, mudstone.**
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- 5810-40 LESTONE-100% Light to medium gray, gray brown, crystalline, lithographic, mudstone.**
- 5840-70 LESTONE-80% Light to medium gray, gray brown, crystalline, lithographic, mudstone.**
SILTSTONE-20% White, arenaceous, firm, anhydritic.
- 5870-5900 LESTONE-90% Light to medium gray, very fine to microcrystalline, soft, chalky in part, lithographic, mudstone.**
ANYDRITE-10% White, soft, chalky.
- 5900-30 SHALE-20% White, light gray, chalky, limy, argillaceous, soft.**
LESTONE-70% Light to medium gray, very fine to microcrystalline, lithographic, mudstone.
ANYDRITE-10% White, chalky, soft.
- 5930-60 LESTONE-100% Light to medium gray, argillaceous, lithographic, mudstone, white, chalky, soft, silty, abundant White, chalky anhydrite.**

- 5960-90** **LIMESTONE-70%** Light to medium gray, argillaceous, lithographic, mudstone, white, chalky, soft, silty, abundant white, chalky anhydrite, very fine to fine crystalline in part.
ANHYDRITE-10% White, soft, chalky.
SILTSTONE- 20% Light gray, arenaceous, limy, firm, anhydritic.
- 5990-6020** **LIMESTONE-70%** Light to medium gray, argillaceous, lithographic, mudstone, white, chalky, soft, silty, abundant white, chalky anhydrite, very fine to fine crystalline in part.
ANHYDRITE-10% White, soft, chalky.
SILTSTONE-20% Light gray, arenaceous, limy, firm, anhydritic.
- 6020-50** **LIMESTONE-90%** Light to medium gray, lithographic, mudstone, white, soft, chalky.
SILTSTONE-10% Light gray, arenaceous, limy, firm, anhydritic.
- 6050-80** **LIMESTONE-100%** Light to medium gray, medium to hard, gray, gray brown, crystalline, lithographic, mudstone, white, soft, chalky, silty.
- 6080-6110** **LIMESTONE-100%** Light to medium gray, lithographic, mudstone, medium to dark gray brown, microcrystalline, dense, mudstone, white, chalky, soft.
- 6110-40** **LIMESTONE-100%** Light to medium gray, lithographic, mudstone, abundant soft white chalky

- 6140-70** **LIMESTONE-100%** Light to medium gray, lithographic, mudstone, minor clear to white anhydrite fracture fill.
- 6170-6200** **LIMESTONE-80%** Light to medium gray, lithographic, mudstone.
SILTSTONE-20% White to light gray, arenaceous, very soft, very calcareous.
- 6200-30** **LIMESTONE-80%** Light to medium gray, lithographic, mudstone.
SILTSTONE-20% White to light gray, arenaceous, very soft, very calcareous.
- 6230-60** **LIMESTONE-90%** Light to medium gray, lithographic, mudstone, light gray, soft.
SILTSTONE-10% Red orange, arenaceous, argillaceous, firm.
- 6260-90** **LIMESTONE-80%** Light to medium gray, lithographic, mudstone.
SILTSTONE-10% Red orange, arenaceous, argillaceous, firm.
- 6290-6320** **LIMESTONE-80%** Light to medium gray, lithographic, mudstone, soft.
SILTSTONE-20% Red orange, arenaceous, argillaceous, firm.
- 6320-6350** **LIMESTONE-80%** Light to medium gray, lithographic, mudstone, soft.
SILTSTONE-20% Red orange, arenaceous, argillaceous, firm.

**6350-6380 LESTONE-80% Light to medium gray, lithographic, mudstone, soft.
SILTSTONE-20% Red orange, arenaceous, argillaceous, firm.**

**6380-6410 LESTONE -80 % Light to medium gray, lithographic, mudstone, soft.
SILTSTONE-20% Red orange, arenaceous, argillaceous, firm.**

6410-6440 SALT-100% White, crystalline, translucent.

6440-6470 SALT-100% White, crystalline, translucent.

6470-6500 SALT-100% White, crystalline, translucent.

6500-6530 SALT-100% White, crystalline, translucent.

6530-6560 SALT-100% White, crystalline, translucent.

6560-6590 SALT--00% White, crystalline, translucent.

6590-6950 SALT 100% White, crystalline, translucent.

**6950-6980 LESTONE-20% Light to medium gray, argillaceous, mudstone.
SALT 80% White, crystalline, translucent.**

24

6980-7010 LESTONE-100% Light gray to white to brownish gray, dense, lithographic.

7010-7040 LESTONE-100% Light gray to brownish gray, lithographic, mudstone.

**7040-70 LESTONE-100% Light to medium gray, tan, microcrystalline, dense, lithographic,
mudstone.**

**7070-7100 LESTONE-100% Light to medium gray, lithographic, crystalline, mudstone, abundant
white anhydrite fracture fill, white, silty in part.**

**7100-30 LESTONE-100% Light to medium gray , crystalline, dense, lithographic, mudstone,
tan, microcrystalline, dense, mudstone, abundant white, chalky anhydrite fracture in fill.**

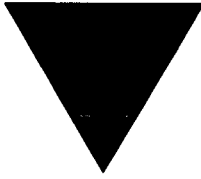
**7130-60 LESTONE-100% Tan, light to medium gray brown, dense, microcrystalline, mudstone,
abundant light to medium gray, lithographic, mudstone, abundant white, chalky,
anhydrite fracture in fill.**

**7160-90 LESTONE-100% Light to medium gray brown, tan, mottled, oolitic, packstone to
grainstone, microcrystalline, hard, dense, tight matrix, no show.**

- 7190-7220 Limestone-100% Light to medium gray brown, tan, mottled, oolitic, packstone to grainstone, microcrystalline, hard, dense, tight matrix, no show, abundant white, sandy, chalky, fracture fill.**
- 7220-50 Limestone-100% Light to medium gray, grayish brown, tan, light gray to white, very fine to fine crystalline, sucrosic texture in part, microcrystalline, dense, hard, tight in part, trace packstone to grainstone in part, oolitic.**
- 7250-80 Limestone-100% Light to medium gray, very fine to microcrystalline, mudstone, abundant tan, microcrystalline, dense, hard, tight.**
- 7280-7310 Limestone-100% Medium to dark gray, dense, microcrystalline, hard, mudstone, white, light gray, silty, chalky, soft to firm, mudstone (30%).**
- 7310-40 Limestone-100% Medium to dark gray, dense, crystalline, mudstone, Light gray to white, silty, chalky, soft to firm, silty, mudstone, (40%) abundant white calcareous fracture in fill.**
- 7340-70 Limestone-100% medium to dark gray, dense, crystalline, mudstone, Light gray to white, silty, chalky, soft to firm, silty, mudstone, (40%) abundant white calcite fracture in fill, 30% light gray, silty, 70% medium to dark gray, abundant fracture fill.**
- 25**
- 7370-7400 Limestone-100% Medium to dark gray, crystalline, 90% light gray, soft, 10% abundant calcite.**
- 7400-30 Limestone-100% Medium to dark gray, 70% light gray, soft, 30% abundant calcite fracture fill.**
- 7430-60 Limestone-100% Medium to dark gray, 80% light gray, 20% calcareous fracture fill.**
- 7460-90 Limestone-100% Light to medium gray brown, medium to dark gray, mottled, oolitic, packstone to grainstone, microcrystalline, dense, in part, mudstone, abundant white calcite fracture fill.**
- 7490-7520 Limestone-100% Light to medium gray brown, tan, light brown, sandy, trace oolitic, abundant white, calcareous, mudstone to wackestone.**
- 7520-50 Limestone-100% Light brown, tan, very fine to microcrystalline, sandy, mudstone to wackestone, abundant white, calcite fracture fill.**
- 7550-80 Limestone-100% Light brown, tan, white, very fine to micro crystalline, mottled, oolitic, light gray to white, chalky, silty, crystalline, calcite fracture fill.**
- 7580-7610 Limestone-100% Light brown, tan, mottled, oolitic, grainstone in part, mudstone, matrix, abundant white, calcareous fracture fill.**

- 7610-40 LESTONE-100% Light brown, tan, white, mottled, mudstone to wackestone, oolitic, mudston matrix, abundant, calcite fracture fill.**
- 7640-70 LESTONE- 100% Light brown, tan, white, packstone to grainstone, mottled, mudstone matrix, oolitic, tight, abundant white, calcite fracture fill.**
- 7670-7700 LESTONE- 100% Light brown, tan, brown, white, mottled, packstone to grainstone, oolitic, mudstone matrix, abundant white, silty, chalky, calcite.**
- 7700-30 LESTONE- 100% Light gray brown, light brown, mottled, packstone to grainstone, oolitic, mudstone matrix, abundant white silty, chalky, calcite.**
- 7730-60 LESTONE- 100% Light grayish brown, light brown, mottled, packstone to grainstone, oolitic, mudstone matrix, abundant white silty, chalky, calcite.**
- 7760-90 LESTONE- 100% White, tan, microcrystalline, tightly, dense, sandy, yellow to gold fluorescence, no cut**

- 7790-7820 LESTONE- 100% White, tan, microcrystalline, tight, dense, sandy, yellow to gold fluorescence, no cut, very fine to microcrystalline, tight, dense.**



WOLVERINE GAS AND OIL COMPANY
of Utah, LLC

Energy Exploration in Partnership with the Environment

August 29, 2005

CONFIDENTIAL

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 W. N. Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Wolverine Federal 17-6 (8-1) Well
Completion Report

Dear Al:

Enclosed please find the Completion Report (form #8) for the captioned well. Attached to the report are the following documents:

- Directional Survey
- Geologic Report
- Logs
 - Mudlog
 - Electric Micro Imager Monitor Log
 - HRI MD
 - HRI TVD
 - Spectral Density/DSN/GR MD
 - Spectral Density/DSN/GR TVD

Please keep this report and all attachments confidential. If you have any questions or concerns, please feel free to contact me.

Sincerely,

Helene Bardolph

enclosures

RECEIVED

AUG 31 2005

DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ FORM 8
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:
UTU-73528

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐
b. TYPE OF WORK: NEW WELL ☒ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER ☐

2. NAME OF OPERATOR:
Wolverine Gas and Oil of Utah, LLC

3. ADDRESS OF OPERATOR: 55 Campau NW CITY Grand Rapids STATE MI ZIP 49503
PHONE NUMBER: (616) 458-1150

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 1680' FNL & 2265' FWL Sec 17 T23S R1W
AT TOP PRODUCING INTERVAL REPORTED BELOW: 764' FNL & 2477' FEL
AT TOTAL DEPTH: 721' FNL & 2458' FEL

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME
Wolverine Federal Unit

8. WELL NAME and NUMBER:
Wolverine Federal 17-6 (8-1)

9. API NUMBER:
4304130037

10. FIELD AND POOL, OR WILDCAT
Covenant Field

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
SENW 17 23S 01W 26

12. COUNTY
Sevier

13. STATE
UTAH

14. DATE SPUDDED: 4/16/2005 15. DATE T.D. REACHED: 5/27/2005 16. DATE COMPLETED: 8/12/2005
ABANDONED ☐ READY TO PRODUCE ☒ 17. ELEVATIONS (DF, RKB, RT, GL): 5752, 5753, 5753, 5736

18. TOTAL DEPTH: MD 6,765 TVD 6,555 19. PLUG BACK T.D.: MD 6,713 TVD 6,504 20. IF MULTIPLE COMPLETIONS, HOW MANY? * 21. DEPTH BRIDGE MD PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)

High Res. Induction MD & TVD, Spectral Density Dual Spaced Neutron MD & TVD, Dipmeter Monitor Log, MUD LOG

23. WAS WELL CORED? NO ☒ YES ☐ (Submit analysis)
WAS DST RUN? NO ☒ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☒ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
30	20 H40	65	0	121		Class G 620	126	Surface Cir	
17.5	13 7/8 J55	61	0	2,053		HiFill V 1,050	518	Surface Cir	
12.25	9 5/8	47	0	6,094		50/50 p 230	58	5100 CAL	
8.5	7	23	0	6,758		50/50 p 255	56	4700 CAL	
	HC P110 LTC								
	HC P110 LTC								

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8	6,364							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) Navajo	6,303	6,765	6,095	6,556	6,395 6,415	.43	80	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(B)					6,430 6,433	.43	52	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(C)					6,472 6,484	.43	48	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(D)					6,512 6,518	.43	24	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>

27. PERFORATION RECORD

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
6395-6518	7 1/2% acid mix @ 1.15 sg and 4% KCl @ 1.04 sg, 6300 gal total

29. ENCLOSED ATTACHMENTS:

☒ ELECTRICAL/MECHANICAL LOGS ☒ GEOLOGIC REPORT ☐ DST REPORT ☒ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER

30. WELL STATUS:

Producing

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31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED: 8/12/2005		TEST DATE: 8/12/2005		HOURS TESTED: 240		TEST PRODUCTION RATES: →	OIL - BBL: 492	GAS - MCF: 0	WATER - BBL: 0	PROD. METHOD: Flowing
CHOKE SIZE: 16/64	TBG. PRESS. 170	CSG. PRESS. 0	API GRAVITY 40.00	BTU - GAS 0	GAS/OIL RATIO 0	24 HR PRODUCTION RATES: →	OIL - BBL: 492	GAS - MCF: 0	WATER - BBL: 0	INTERVAL STATUS: Producing

INTERVAL B (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

INTERVAL C (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

INTERVAL D (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

Venting (gas too small to measure)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
Navajo	6,303	6,767	Oil & water	Arapien Twin Creek Navajo	0 5,895 6,303

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) John Vrona

TITLE Manager of Geology

SIGNATURE

DATE 8/29/2005

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

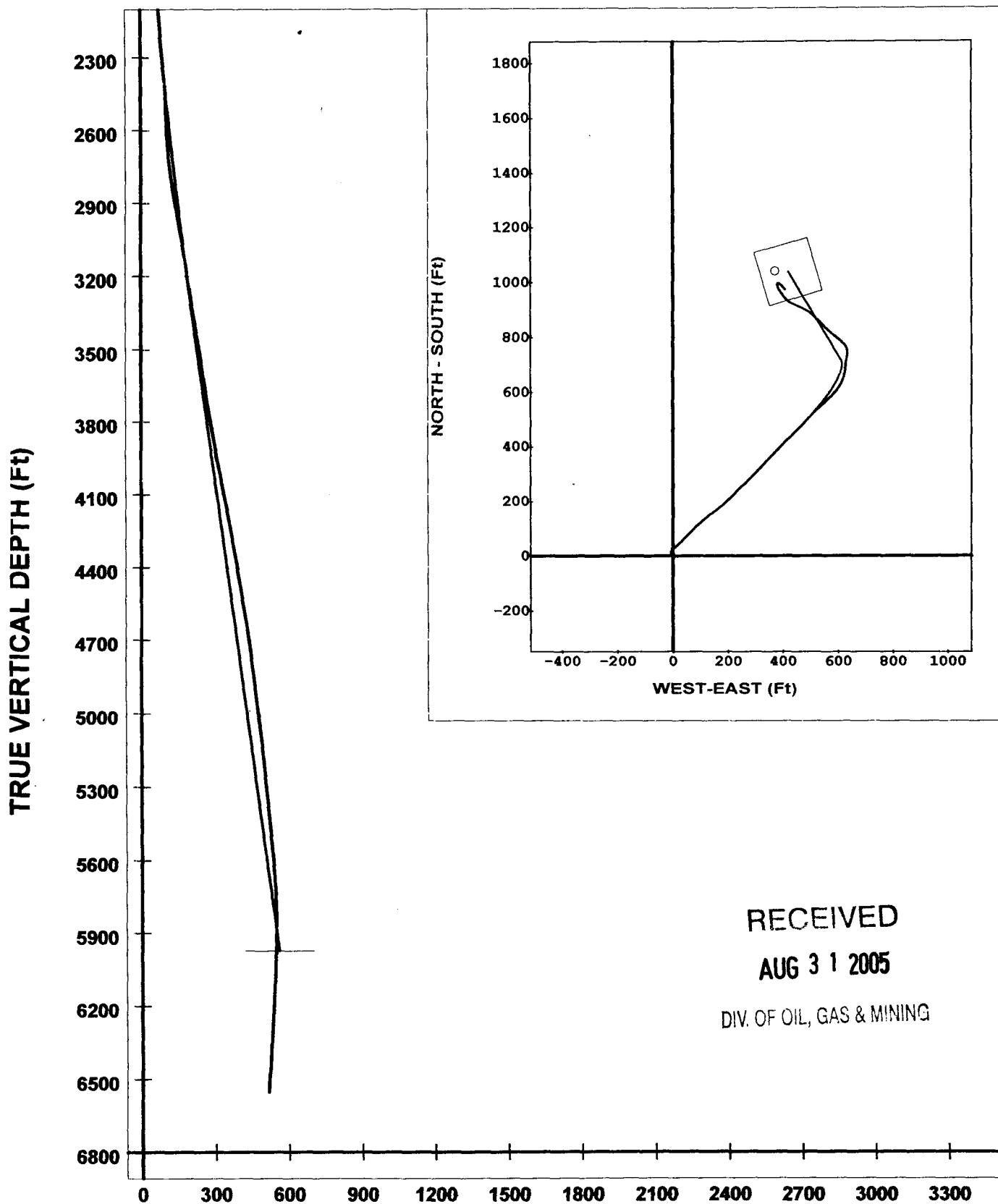
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AUG 31 2005

DIV. OF OIL, GAS & MINING

CONFIDENTIAL

Company: Wolverine Oil & Gas Co or Utah, LLC
Lease/Well: KMR 17-6
Location: Covenant Field
State/Country: Sevier Co. Ut.



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AUG 31 2005

DIV. OF OIL, GAS & MINING

— 17-6 ST WORK — 17-6 Plan 3 Deg.

VERTICAL SECTION (Ft) @ 322.00°



Job Number: WYL0505D058

State/Country: Sevier Co. UT

Company: Wolverine Oil & Gas Co of Utah, LLC Declination: 12.56

Lease/Well: KMR 17-6

Grid:

Location: Covenant Field

File name: C:\MARSHA~1\ENDOFW~1\WOLVER~1\KMR#17~1\17

Rig Name: Unit 111

Date/Time: 12-Jul-05 / 14:07

RKB:

Curve Name: 17-6 ST WORK

G.L. or M.S.L.:

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane 322.00

Vertical Section Referenced to Wellhead

Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	Vertical Section FT	N-S FT	E-W FT	Dogleg Severity Deg/100	BUILD RATE Deg/100	WALK RATE Deg/100	TFO Deg
.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	-90.00
173.00	2.70	322.50	172.94	173.00	4.08	3.23	-2.48	1.56	1.56	-21.68	3.99
203.00	3.60	323.50	202.89	30.00	5.72	4.55	-3.47	3.01	3.00	3.33	-11.86
233.00	4.50	321.10	232.82	30.00	7.84	6.22	-4.77	3.05	3.00	-8.00	78.64
266.00	5.40	345.00	265.70	33.00	10.57	8.73	-5.99	6.75	2.73	72.42	95.23
296.00	5.40	355.50	295.56	30.00	13.04	11.50	-6.46	3.29	.00	35.00	121.41
326.00	5.00	4.10	325.44	30.00	15.19	14.21	-6.48	2.92	-1.33	28.67	110.44
357.00	4.70	29.30	356.33	31.00	16.68	16.67	-5.76	6.88	-.97	81.29	49.17
388.00	5.50	38.20	387.21	31.00	17.53	18.94	-4.22	3.62	2.58	28.71	5.73
419.00	6.80	39.30	418.03	31.00	18.28	21.53	-2.14	4.21	4.19	3.55	23.75
448.00	8.30	43.80	446.78	29.00	18.96	24.37	.40	5.56	5.17	15.52	32.71
478.00	9.80	49.30	476.40	30.00	19.39	27.60	3.83	5.77	5.00	18.33	-4.24
509.00	11.10	48.80	506.89	31.00	19.68	31.29	8.08	4.20	4.19	-1.61	-9.09
539.00	12.30	47.90	536.27	30.00	20.07	35.33	12.62	4.05	4.00	-3.00	-8.07
569.00	13.10	47.40	565.53	30.00	20.57	39.77	17.49	2.69	2.67	-1.67	-28.78
600.00	13.80	45.80	595.68	31.00	21.25	44.73	22.73	2.56	2.26	-5.16	-42.75
630.00	14.70	42.60	624.76	30.00	22.26	50.03	27.87	3.99	3.00	-10.67	-16.59
689.00	16.00	41.20	681.65	59.00	25.01	61.66	38.30	2.29	2.20	-2.37	37.70
750.00	17.00	43.80	740.14	61.00	27.85	74.42	50.01	2.04	1.64	4.26	113.68
811.00	16.70	46.30	798.52	61.00	30.00	86.91	62.52	1.29	-.49	4.10	-90.10
874.00	16.70	46.10	858.87	63.00	31.83	99.44	75.58	.09	.00	-.32	90.43
964.00	16.70	47.00	945.07	90.00	34.28	117.22	94.36	.29	.00	1.00	82.39
1056.00	16.90	51.10	1033.15	92.00	35.64	134.64	114.43	1.31	.22	4.46	163.88
1150.00	16.80	51.20	1123.11	94.00	36.05	151.73	135.65	.11	-.11	.11	67.00
1245.00	17.10	53.50	1213.98	95.00	35.88	168.64	157.58	.77	.32	2.42	-108.05

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	Vertical Section FT	N-S FT	E-W FT	Dogleg Severity Deg/100	BUILD RATE Deg/100	WALK RATE Deg/100	TFO Deg
1339.00	16.80	50.00	1303.90	94.00	35.99	185.59	179.10	1.13	-.32	-3.72	-125.51
1434.00	16.10	46.30	1395.02	95.00	37.77	203.52	199.14	1.33	-.74	-3.89	-54.15
1528.00	16.70	43.50	1485.19	94.00	41.07	222.32	217.86	1.06	.64	-2.98	5.66
1622.00	17.30	43.70	1575.09	94.00	45.08	242.22	236.81	.64	.64	.21	76.82
1717.00	17.50	46.30	1665.74	95.00	48.54	262.30	256.90	.84	.21	2.74	1.91
1812.00	19.50	46.50	1755.83	95.00	51.48	283.09	278.73	2.11	2.11	.21	-11.48
1906.00	22.10	45.10	1843.69	94.00	55.10	306.37	302.64	2.82	2.77	-1.49	-29.49
2063.00	24.90	41.40	1987.66	157.00	64.74	352.02	345.42	2.02	1.78	-2.36	40.04
2125.00	25.90	43.30	2043.67	62.00	69.18	371.67	363.34	2.08	1.61	3.06	23.93
2189.00	26.30	43.70	2101.15	64.00	73.35	392.09	382.72	.68	.63	.62	23.62
2252.00	27.80	45.10	2157.25	63.00	77.13	412.56	402.77	2.59	2.38	2.22	-4.28
2346.00	29.10	44.90	2239.90	94.00	82.58	444.22	434.44	1.39	1.38	-.21	-54.96
2440.00	30.00	42.40	2321.67	94.00	89.33	477.77	466.42	1.62	.96	-2.66	-169.37
TIE-IN											
2534.00	28.00	41.60	2403.88	94.00	97.23	511.63	496.92	2.17	-2.13	-.85	110.95
2629.00	26.90	49.10	2488.21	95.00	102.35	542.38	527.98	3.82	-1.16	7.89	166.66
2668.00	25.80	49.70	2523.16	39.00	103.13	553.65	541.12	2.90	-2.82	1.54	-173.97
2685.00	25.00	49.50	2538.52	17.00	103.44	558.37	546.67	4.73	-4.71	-1.18	-151.49
2763.00	22.20	45.40	2609.99	78.00	105.85	579.43	569.71	4.16	-3.59	-5.26	-129.22
2857.00	20.40	38.60	2697.58	94.00	111.69	604.71	592.58	3.25	-1.91	-7.23	-129.86
2951.00	18.30	29.80	2786.28	94.00	121.07	630.33	610.14	3.82	-2.23	-9.36	-125.35
3045.00	15.80	13.60	2876.20	94.00	134.60	655.59	620.49	5.69	-2.66	-17.23	-120.64
3140.00	14.60	4.30	2967.89	95.00	151.49	680.11	624.43	2.86	-1.26	-9.79	157.44
3235.00	13.80	5.70	3059.98	95.00	168.54	703.32	626.45	.92	-.84	1.47	123.11
3329.00	12.60	15.40	3151.51	94.00	182.76	724.36	630.29	2.68	-1.28	10.32	-120.79
3423.00	11.30	1.30	3243.49	94.00	196.01	743.46	633.22	3.39	-1.38	-15.00	-116.26
3518.00	10.20	341.80	3336.85	95.00	211.13	760.76	630.80	3.98	-1.16	-20.53	-113.21
3613.00	9.40	313.40	3430.52	95.00	226.72	774.09	622.53	5.10	-.84	-29.89	-105.05
3707.00	9.20	307.70	3523.29	94.00	241.59	783.96	611.01	1.00	-.21	-6.06	161.89
3801.00	8.40	309.50	3616.18	94.00	255.58	792.92	599.77	.90	-.85	1.91	18.85
3896.00	9.20	311.20	3710.06	95.00	269.81	802.34	588.70	.89	.84	1.79	30.45
3990.00	9.60	312.60	3802.80	94.00	284.93	812.59	577.27	.49	.43	1.49	16.01
4085.00	9.90	313.10	3896.42	95.00	300.81	823.54	565.48	.33	.32	.53	14.35
4179.00	10.70	314.20	3988.91	94.00	317.44	835.14	553.32	.88	.85	1.17	128.05
4274.00	10.60	314.90	4082.27	95.00	334.85	847.46	540.81	.17	-.11	.74	180.00
4369.00	10.10	314.90	4175.73	95.00	351.79	859.51	528.72	.53	-.53	.00	5.21
4472.00	10.50	315.10	4277.07	103.00	370.07	872.53	515.70	.39	.39	.19	-149.75
4566.00	9.60	311.90	4369.62	94.00	386.29	883.83	503.82	1.13	-.96	-3.40	-90.19
4661.00	9.80	300.00	4463.28	95.00	401.58	893.16	490.92	2.12	.21	-12.53	1.72
4755.00	10.40	300.10	4555.82	94.00	416.87	901.42	476.65	.64	.64	.11	-120.36
4850.00	9.90	294.70	4649.33	95.00	432.08	909.13	461.81	1.13	-.53	-5.68	-174.96
4945.00	8.70	294.00	4743.08	95.00	445.69	915.47	447.83	1.27	-1.26	-.74	-155.92
5029.00	7.80	291.00	4826.21	84.00	456.18	920.09	436.71	1.19	-1.07	-3.57	120.33
5123.00	7.30	298.60	4919.40	94.00	467.13	925.24	425.51	1.19	-.53	8.09	103.42

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Course Length FT	Vertical Section FT	N-S FT	E-W FT	Dogleg Severity Deg/100	BUILD RATE Deg/100	WALK RATE Deg/100	TFO Deg
5218.00	7.10	311.60	5013.66	95.00	478.44	932.03	415.82	1.72	-.21	13.68	116.74
5312.00	6.70	319.50	5106.98	94.00	489.64	940.05	407.91	1.09	-.43	8.40	153.90
5406.00	6.10	322.30	5200.39	94.00	500.11	948.18	401.30	.72	-.64	2.98	144.05
5500.00	5.40	327.90	5293.92	94.00	509.50	955.87	395.89	.95	-.74	5.96	160.49
5595.00	5.10	329.10	5388.52	95.00	518.14	963.28	391.35	.34	-.32	1.26	-22.36
5690.00	6.00	325.60	5483.08	95.00	527.29	971.00	386.37	1.01	.95	-3.68	129.70
5784.00	5.20	337.90	5576.63	94.00	536.29	979.00	381.99	1.53	-.85	13.09	144.01
5879.00	4.10	350.10	5671.32	95.00	543.42	986.34	379.79	1.55	-1.16	12.84	152.91
5973.00	3.00	1.50	5765.14	94.00	548.29	992.11	379.28	1.38	-1.17	12.13	145.50
6060.00	1.70	54.80	5852.07	87.00	549.98	995.13	380.39	2.77	-1.49	61.26	92.86
6162.00	2.30	100.10	5954.01	102.00	548.38	995.64	383.64	1.60	.59	44.41	97.56
6256.00	2.50	131.90	6047.94	94.00	544.96	993.94	387.03	1.41	.21	33.83	-4.64
6351.00	3.10	131.00	6142.82	95.00	540.40	990.87	390.51	.63	.63	-.95	24.86
6445.00	3.30	132.60	6236.68	94.00	535.23	987.37	394.42	.23	.21	1.70	119.11
6539.00	3.20	136.00	6330.52	94.00	529.96	983.66	398.23	.23	-.11	3.62	-2.23
6634.00	3.90	135.60	6425.34	95.00	524.11	979.44	402.33	.74	.74	-.42	126.31
6728.00	3.50	145.80	6519.15	94.00	518.07	974.78	406.18	.82	-.43	10.85	115.02
PROJECTION TO BIT AT 6764 TD											
6764.00	3.40	149.70	6555.08	36.00	515.91	972.95	407.34	.71	-.28	10.83	115.63

WOLVERINE GAS & OIL COPORATION

**KING MEADOW RANCH #17-6
NE/NW SEC.17.T23S,R1W
SEVIER CO., UT**

RECEIVED
AUG 31 2005
DIV. OF OIL, GAS & MINING

GEOLOGIC REPORT
ON
KING MEADOW RANCH #17-6
NW/SW SEC., T23S, R1S
SEVIER CO., UT
FOR
WOLVERINE GAS & OIL CORPORATION
ONE RIVER FRONT PLAZA
55 CAMPAU NW
GRAND RAPIDS, MI 49503-2616

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WELL DATA SUMMARY

WELL NAME	KING MEADOW RANCH #17-6
OPERATOR	WOLVERINE GAS & OIL CORP
SURFACE LOCATION	NF/NW SEC.17, T23S, R1W SEVIER COUNTY, UT
API #	043-041-30037
WELL CLASSIFICATION	DEVELOPMENT COVENANT FIELD
DRILLING CONTRACTOR	UNIT #111
WELL LICENSE #	043-041-30037
ELEVATION - GROUND LEVEL	5736'
KELLY BUSHING	5753'
SPUD DATE	5-15-05
SURFACE CASING	2053' OF 13 3/8
INTERMEDIATE CASING	6078' OF 9 5/8
PRODUCTION CASING	6764' OF 7"
HOLE SIZE	17 1/2'', 12 1/4'', 8 1/2''
SAMPLE INTERVAL	2720' - 6764'
GAS DETECTION	2718' - 6764
OPEN HOLE LOGS	GR,SP,CAL.,HRI,SDL/DSN,EMI,MRIL
MUD TYPE	SATURATED SALT MUD, FLOZAN
WELL STATUS	AWAITING COMPLETION

FORMATION TOPS

Kelly Bushing 5753'

Formation Prog.(tvd) Spl. (md) Spl. Top(tvd) Log Top(md) Log Top(tvd) Sub Sea

Arapien Surface

Twin Creek 5912 5704

Navajo 5933 6321 6112 6303 6094 -341

FORMATION EVALUATION

WOLVERINE GAS & OIL CORPORATION KINGS MEADOW RANCHES #17-6 NE/NW SEC. 17,T235, R1W SEVIER COUNTY, UT

The King Meadow Ranch #17-6 was side tracked from under the surface casing set for the Wolverine Federal #8-1. The Wolverine Federal #8-1 was plugged because the Navajo pay zone would have come in below the oil/water contact. Side track off the cement plug started at 2718' on May 18, 2005. Crews caught 30' lagged samples from 2720' to 6764'. Mud Gas was run over the same interval. A full suite of E-Logs was run including Dip Meter and MRIL.

NAVAJO 6303' MD 6094 TVD -341 SS

The Navajo was white, light red orange, clear, quartzose, fine to medium grained, sub angular, fair to poor sorted, clay matrix, silica cement, friable, 70-98% unconsolidated, brown oil stain, rainbows on the wash water, strong hydrocarbon odor, yellow to white oil fluorescence, yellow to white milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity.

CONCLUSION: Oil saturated oil reservoir-Awaiting Completion

BIT RECORD

WELL NAME

KINGS MEADOW RANCHES #17-6

LOCATION

NE/NW SEC. 17, T235, R1W

SURFACE CASING

2053' OF 13 3/8"

SPUD DATE

5-15-05

TD DATE

5-27-05

BIT	1	2	3	4
SIZE	12 ¼	12 ¼	12 ¼	8 ½
MAKE	RTC	RTC	RTC	SEC
TYPE	HP43AKPR	EM551H	HP53A	EBX5305
SERIAL #	B73489	P70649	PB4486	10686493
JETS	3X24	3X24	3X24	3X12
OUT @	4519	5079	6110	6765
FOOTAGE	2415	560	1031	655
HOURS	95	27 ½	51 ½	28 ½
ACC HRS	95	122 ½	174	202 ½
WT	40	40	50	30
RPM	0/30	0/30	0/30	0/30
PP	1900	1900	2000	900
MUD WT	10.4	10.4	10.7	8.4
VIS	31	31	31	33

5

DAILY DRILLING SUMMARY

DATE	DEPTH	PROG.	HRS	MUD	VIS	WL	PH	ACTIVITY
5-15-05	2686	NIL	NIL	10.5	37	NC	11.0	PLUGGING BACK
5-16-05	2940	254	11 ½	10.3	33	NC	10.5	TIME DRILL, DRILL

5-17-05	3380	450	23 ½	10.1	32	NC	11.0	DRILL
5-18-05	3917	537	23	10.2	30	NC	10.5	DRILL
5-19-05	4519	602	23 ½	10.4	31	NC	10.0	DRILL
5-20-05	4944	425	15 ½	10.4	31	NC	9.5	DRILL, TRIP BIT
5-21-05	5107	163	14 ½	10.4	31	NC	10.0	RIH, DRILL
5-22-05	5684	577	23 ½	10.4	32	NC	10.0	DRILL
5-23-05	6075	391	23 ½	10.4	32	NC	10.0	DRILL
5-24-05	6110	35	2	10.7	31	NC	10.5	DRILL, RUN 9 5/8"
5-25-05	6110	NIL	NIL	8.7	29	11	9.0	CEMENT, PRES, TEST
5-26-05	6418	308	13 ½	8.4	33	10.5	9.5	DRILL,COND. MUD,Drill
5-27-05	6765	347	13	8.4	32	7.0	9.5	DRILL
5-28-05	6765	NIL	NIL	8.4	33	7.5	9.0	Logging w/ Hallibiulon

DEPTH	INCLINATION	DIRECTION
173.00	2.70	322.50
203.00	3.60	323.50
233.00	4.50	321.10
266.00	5.40	345.00
296.00	5.40	355.50
326.00	5.00	4.10
357.00	4.70	29.30
388.00	5.50	38.20
419.00	6.80	39.30
448.00	8.30	43.80
478.00	9.80	49.30
509.00	11.10	48.80
539.00	12.30	47.90
569.00	13.10	47.40
600.00	13.80	45.80
630.00	14.70	42.60
689.00	16.00	41.20
750.00	17.00	43.80
811.00	16.70	46.30
874.00	16.70	46.10
964.00	16.70	47.00
1056.00	16.90	51.10
1150.00	16.80	51.20
12.45.00	17.10	53.50
DEPTH	INCLINATION	DIRECTION
1339.00	16.80	50.00
1434.00	16.10	46.30
1528.00	16.70	43.50
1622.00	17.30	43.70
1717.00	17.50	43.60

1812.00	19.50	46.50
1906.00	22.10	45.10
2063.00	24.90	41.40
2125.00	25.90	43.30
2189.00	26.30	43.70
2252.00	27.80	45.10
2346.00	29.10	44.90
2440.00	30.00	42.40
2534.00	28.00	41.60
2629.00	26.90	49.10
2668.00	25.80	49.70
2685.00	25.00	49.50
2700.00	24.30	49.50
2731.00	23.10	48.10
2763.00	22.20	45.40
2857.00	20.40	38.60
2951.00	18.30	29.80
3045.00	15.80	13.60
3045.00	15.80	13.60
3140.00	14.60	4.30
3235.00	13.80	5.70
3329.00	12.60	15.40
3423.00	11.30	1.30
3518.00	10.20	341.80
3518.00	10.20	341.80
3613.00	9.40	313.40
DEPTH	INCLINATION	DIRECTION
3707.00	9.20	307.70
3801.00	8.40	309.50
3869.00	9.20	311.20
3990.00	9.60	312.60
4085.00	9.90	313.10

4085.00	9.90	313.10
4179.00	10.70	314.20
4179.00	10.70	341.20
4274.00	10.60	314.90
4369.00	10.10	314.90
4472.00	10.50	315.10
4566.00	9.60	311.60
4661.00	9.80	300.00
4755.00	10.40	300.10
4850.00	9.90	294.70
4945.00	8.70	294.00
4945.00	8.70	294.00
5029.00	7.80	291.00
5123.00	7.30	298.60
5218.00	7.10	311.60
5312.00	6.70	319.50
5406.00	6.10	322.30
5500.00	5.40	327.90
5595.00	5.10	329.10
5690.00	6.00	325.60
5784.00	5.20	337.90
5879.00	4.10	350.10
5973.00	3.00	1.50
6060.00	1.70	54.80
6110.00	1.70	54.80
6162.00	2.30	100.10
DEPTH	INCLINATION	DIRECTION
6256.00	2.50	131.90
6351.00	3.10	131.00
6445.00	3.30	132.60
6539.00	3.20	136.00
6634.00	3.90	135.60

6728.00	3.50	145.80
6764.00	3.40	149.70

SAMPLE DESCRIPTIONS

**Wolverine Gas & Oil Corporation
Kings Meadow Ranch #17-6**

2720-50 SHALE- 10% Red brown, silty, blocky, firm, calcareous.

SILTSTONE- 10% White, chalky, anhydritic, firm, arenaceous.
LIMESTONE- 80% Light to medium gray, lithographic, argillaceous, mudstone.

- 2750-80** **SHALE- 20% Red brown, arenaceous, silty, soft to firm, calcareous, abundant potash, salt casts.**
 SILTSTONE- 10% White, light gray, arenaceous, argillaceous, slightly calcareous.
 LIMESTONE- 80% Light to medium gray, lithographic, argillaceous, mudstone.
- 2780-2810** **SHALE- 30% White, light gray, soft, limy, grades to argillaceous limestone.**
 SILTSTONE- 20% White, light gray, arenaceous, limy, anhydritic.
 LIMESTONE- 50% Light to medium gray, argillaceous, lithographic, mudstone.
- 2810-40** **SHALE- 20% White, light gray, soft, limy, grades to argillaceous limestone.**
 SILTSTONE- 10% White, light gray, arenaceous, limy, anhydritic.
 LIMESTONE- 70% Light to medium gray, argillaceous, lithographic, mudstone.
- 2840-70** **SILTSTONE- 10% White, light gray, arenaceous, limy, anhydritic.**
 LIMESTONE- 70% Light to medium gray, argillaceous, lithographic, mudstone.
- 2870-2900** **LIMESTONE- 90% Light to medium gray, argillaceous, lithographic, mudstone.**
 ANHYDRITIC- 10% White, soft, chalky, sucrosic texture.
- 2900-30** **LIMESTONE- 40% Light to medium gray, argillaceous, lithographic, mudstone, crystalline in part.**
 SILTSTONE- 30% White, light gray, arenaceous, limy, anhydritic.
 ANHYDRITIC-30% White, chalky, sucrosic texture.
- 2930-60** **LIMESTONE- 40% Light to medium gray, argillaceous, lithographic, mudstone, crystalline in part.**
 ANHYDRITIC-30% White, chalky, sucrosic texture.

- 2960-90** **SHALE- 30% Light gray, limy, soft to firm, chalky.**
 LIMESTONE- 70% Light to medium gray, argillaceous, lithographic, mudstone.
- 2990-3020** **LIMESTONE- 90% Light to medium gray, argillaceous, lithographic, mudstone.**
 ANHYDRITIC- 10% White, soft, chalky.
- 3020-50** **LIMESTONE- 40% Light to medium gray, argillaceous, lithographic, mudstone.**

SILTSTONE- 60% White, arenaceous, argillaceous, anhydritic.

**3050-80 LESTONE- 10% Light to medium gray, argillaceous, lithographic, mudstone.
SILTSTONE- 90% White, arenaceous, argillaceous, anhydritic.**

**3080-3110 LESTONE- 80% Light to medium gray, crystalline, argillaceous, anhydritic.
SILTSTONE- 10% White, arenaceous, argillaceous, anhydritic.
ANHIDRITIC- 10% White, soft, chalky**

**3110-40 LESTONE- 20% Light to medium gray, crystalline, argillaceous, anhydritic.
SILTSTONE- 20% White, arenaceous, argillaceous, anhydritic.
SANDSTONE- 60% White, clear, quartzose, fine to medium grained, sub angular
to rounded, fair to poorly sorted, unconsolidated.**

**3140-70 SHALE- 10% Red brown, silty, blocky, slightly calcareous.
LESTONE- 10% Light to medium gray, crystalline, argillaceous, anhydritic.
SILTSTONE- 10% White, arenaceous, argillaceous, anhydritic.
SANDSTONE- 70% White, clear, quartzose, fine to medium grained, sub angular
to rounded, fair to poorly sorted, unconsolidated.**

**3170-3200 LESTONE- 70% Light to medium gray, crystalline, lithographic, mudstone.
SILTSTONE- 30% White, Light gray, arenaceous, argillaceous, anhydritic.**

**3200-30 SHALE- 10% Red brown, soft to firm, silty, calcareous.
SILTSTONE- 70% White, Light gray, arenaceous, argillaceous, anhydritic.
LESTONE- 20% Light to medium gray, crystalline, lithographic, mudstone.**

**3230-60 LESTONE-80% Light to medium gray, crystalline, lithographic, mudstone.
ANHIDRITIC-10% White, soft, chalky.
SILTSTONE-10% White, light gray, arenaceous, argillaceous.**

**3260-90 LESTONE-100% Light to medium gray, argillaceous, lithographic, mudstone, 10%
soft, chalky.**

**3290-3320 LESTONE-100% Light to medium gray, argillaceous, lithographic, mudstone, 10%
soft, chalky, silty in part.**

**3320-50 LESTONE-100% Light to medium gray, medium to dark gray, argillaceous,
lithographic, mudstone, 10%, soft, chalky, silty in parts.**

**3350-80 LESTONE-100% Medium to dark gray, crystalline, lithographic, argillaceous,
mudstone, abundant anhydrite fracture fill.**

- 3380-3410 LESTONE-100% Light to medium gray brown, crystalline, lithographic, mudstone.**
- 3410-40 LESTONE-100% Light to medium gray brown, crystalline, lithographic, mudstone.**
- 3440-70 LESTONE-100% Light to medium gray brown, crystalline, lithographic, mudstone, abundant white, calcite and anhydrite fracture fill.**
- 3470-3500 LESTONE-100% Light to medium gray brown, crystalline, lithographic, mudstone, abundant white, calcite and anhydrite fracture fill.**
- 3500-30 LESTONE-100% Light to medium gray brown, crystalline, lithographic, mudstone.**
- 3530-60 LESTONE-100% Light to medium gray brown, crystalline, lithographic, mudstone.**
- 3560-90 LESTONE-100% Light to medium gray brown, crystalline, lithographic, mudstone, 10% soft, chalky, abundant calcite fracture fill.**
- 3590-3620 LESTONE-100% Light to medium gray brown, crystalline, lithographic, mudstone.**
- 3620-50 LESTONE-100% Light to medium gray brown, crystalline, lithographic, mudstone, abundant calcite fracture fill, soft chalky in part.**
- 3650-80 LESTONE-100% Light to medium gray brown, crystalline, lithographic, mudstone abundant, calcite fracture fill, soft chalky in part.**
- 3680-3710 LESTONE-100% Light to medium gray brown, crystalline, lithographic, mudstone abundant, calcite fracture fill.**
- 3710-40 LESTONE-70% Light to medium gray brown, crystalline, lithographic, mudstone, abundant calcite fracture fill.
SILTSTONE-30% White, light gray, clay filled, limy, firm.**
- 3740-70 LESTONE-100% Light to medium gray brown, crystalline, lithographic, mudstone, abundant calcite fracture fill, light gray, soft, chalky 30%.**
- 13**
- 3770-3800 LESTONE-70% Light to medium gray brown, crystalline, lithographic, mudstone abundant, calcareous fracture fill, Light gray, soft, chalky 30%
SILTSTONE-30% White, Light gray, clay filled, limy, firm**
- 3800-30 LESTONE-80% Light to medium gray brown, crystalline, lithographic, mudstone, abundant calcite fracture fill, light gray, soft, chalky 30%.
SILTSTONE-20% White, light gray, clay filled, limy, firm.**
- 3830-60 LESTONE-100% Light to medium gray, silty, earthy, lithographic, mudstone.**

3860-90 Limestone-100% Light to medium gray, silty, earthy, lithographic, mudstone.

3890-3920 Limestone-20% Light to medium gray, silty, earthy, lithographic, mudstone.
SALT-80% White, pink, clear, crystalline, translucent.

3920-50 SALT-100% White, clear, pink, crystalline, translucent.

3950-80 SALT-100% White, clear, pink, crystalline, translucent.

3980-4010 SALT-100% White, clear, pink, crystalline, translucent.

4010-40 SALT-100% White, clear, pink, crystalline, translucent.

4040-70 SALT-100% White, clear, pink, crystalline, translucent.

4070-4100 SALT-100% White, clear, pink, crystalline, translucent.

4100-30 SHALE-20% Red orange, gray green, blocky, waxy, smooth, firm.
SALT-80% White, clear, pink, crystalline, translucent.

4130-60 SHALE-10% Red orange, gray green, blocky, waxy, smooth, firm, silty.
SALT-90% White, clear, pink, crystalline, translucent.

4160-90 SALT-100% Light red orange, pink, white, clear, translucent, crystalline.

4190-4220 SHALE-10% Red brown, red orange, soft, chalky, firm.
SALT-90% Light red orange, pink, white, clear, translucent, crystalline.

4220-50 SALT-100% Light red orange, pink, white, clear, translucent, crystalline.

4250-80 SALT-100% Light Red orange, pink, White, clear, translucent, crystalline.

4280-4310 SALT-100% Light Red orange, pink, White, clear, translucent, crystalline.

4310-40 SALT-100% Light red orange, pink, white, clear, translucent, crystalline.

4340-70 SALT-100% Light red orange, pink, clear, translucent, crystalline.

4370-4400 SALT-90% Light red orange, pink, clear, translucent, crystalline.
Limestone-10% Light to medium gray, lithographic, mudstone.

4400-30 Limestone-100% Light to medium gray brown, gray brown, light brown, mottled,
crystalline, lithographic, mudstone.

- 4430-60** Limestone-100% Light to medium gray, silty in part, chalky in part, crystalline, lithographic, mudstone.
- 4460-90** Limestone-90% White, light gray, silty, light to medium gray, lithographic, mudstone, crystalline in part.
Siltstone-10% White, light gray, arenaceous, limy, clay filled.
- 4490-4520** Limestone-80% White, light gray, silty, light to medium gray, lithographic, mudstone, crystalline in part.
Siltstone-20% White, light gray, arenaceous, limy, clay filled.
- 4520-50** Shale-20% Light gray, gray green, soft to firm, calcareous, blocky, smooth.
Siltstone-10% White, light gray, arenaceous, limy, argillaceous.
Limestone-70% Light to medium gray, silty, crystalline, lithographic, mudstone.
- 4550-80** Salt-70% White, clear, crystalline.
Limestone-30% Light to medium gray, argillaceous, lithographic, mudstone.
- 4580-4610** Salt-90% White, clear, crystalline.
Limestone-10% Light to medium gray, argillaceous, lithographic, mudstone.
- 4610-40** Sh-10% Red brown, blocky, firm, calcareous.
Siltstone-20% White, light gray, soft to firm, arenaceous, calcareous.
Limestone-70% Light to medium gray, soft to firm, crystalline in part, chalky in part, lithographic, mudstone.
- 4640-70** Sh-70% Red brown, blocky, firm, calcareous.
Limestone-30% Light to medium gray, soft to firm, crystalline in part, chalky in part, lithographic, mudstone.
- 4670-4700** Sh-90% Red brown, blocky, firm, calcareous.
Limestone-10% Light to medium gray, soft to firm, crystalline in part, chalky in part, lithographic, mudstone.
- 15**
- 4700-30** Sh-70% Red brown, blocky, firm, calcareous
Limestone-30% Light to medium gray, soft to firm, crystalline in parts, chalky in parts, lithographic, mudstone
- 4730-60** Salt-100% Red orange, clear, crystalline, translucent.
- 4760-90** Salt-100% Red orange, pink, crystalline, translucent.
- 4790-4820** Salt-100% Red orange, pink, crystalline, translucent.
- 4820-50** Salt-100% Red orange, pink, crystalline, translucent.

4850-80 **SALT-100% Red orange, pink, crystalline, translucent.**

4880-4910 **SALT-100% Red orange, pink, crystalline, translucent.**

4910-40 **SALT-100% Red orange, pink, crystalline, translucent.**

4940-70 **SHALE-50% Red orange, gray, gray green, silty, blocky, smooth, calcareous.**
SILTSTONE-30% White, Light gray, arenaceous, argillaceous, limy, firm.
LIMESTONE-20% Light to medium gray, argillaceous, earthy, lithographic, mudstone.

4970-5000 **SHALE-50% Red brown, silty, slightly calcareous, firm, white, gray, limy, soft.**
SILTSTONE-10% Light gray, white, arenaceous, argillaceous, firm.
SANDSTONE-40% Light gray, fine grained, sub angular, fair to poorly sorted, clay filled.

5000-30 **LIMESTONE-60% Light to medium gray, lithographic, mudstone.**
SILTSTONE-40% Light gray, arenaceous, limy, firm.

5030-60 **LIMESTONE-30% Light to medium gray, lithographic, mudstone.**
SILTSTONE-70% Light gray, arenaceous, limy, firm.

5060-90 **LIMESTONE-100% Light to medium gray brown, crystalline, dense, lithographic, mudstone.**

5090-5120 **LIMESTONE-80% Light to medium gray, crystalline, argillaceous, lithographic, silty, mudstone.**
SILTSTONE-20% Light gray, white, argillaceous, limy, blocky, firm.

5120-50 **LIMESTONE-70% Light to medium gray, crystalline, argillaceous, lithographic, silty, mudstone.**
SILTSTONE-30% Light gray, white, argillaceous, limy, blocky, firm.

5150-80 **SALT-70% White, pink, crystalline, translucent.**
LIMESTONE-30% Light to medium gray, crystalline, argillaceous, lithographic, silty, mudstone.

5180-5210 **SALT-80% White, pink, crystalline, translucent.**
LIMESTONE-20% Light to medium gray, crystalline, argillaceous, lithographic, silty, mudstone.

5210-40 **SALT-100% White, pink, crystalline, translucent.**

5240-70 **SALT-100% White, pink, crystalline, translucent.**

5270-5300 SALT-100% White, pink, crystalline, translucent.
5300-30 SALT-100% White, pink, crystalline, translucent.
5330-30 SALT-100% White, pink, crystalline, translucent, muddy, potash.
5360-90 SALT-100% White, pink, crystalline, translucent, muddy, potash.
5390-5420 SALT-100% White, pink, crystalline, translucent, muddy, potash.
5420-50 SALT-100% White, pink, crystalline, translucent, muddy, potash
5450-80 SALT-100% White, pink, crystalline, translucent, muddy, potash.
5480-5510 LIMESTONE-100% Light to medium gray brown, crystalline, chalky, soft to hard, lithographic, mudstone.
5510-40 SHALE-20% Light gray, soft, chalky, limy.
LIMESTONE-80% Light to medium gray brown, crystalline, lithographic, mudstone.
5540-70 SHALE-40% Light gray, white, soft, chalky, earthy, limy.
LIMESTONE-60% Light to medium gray brown, crystalline, dense, lithographic, mudstone, abundant anhydrite fracture fill.
5570-5600 SHALE-60% Light gray, white, soft, chalky, earthy, limy.
LIMESTONE-40% Light to medium gray brown, crystalline, dense, lithographic, mudstone, abundant anhydrite fracture fill.

5600-30 SHALE-40% Light gray, soft, earthy, limy.
LIMESTONE-60% Light to medium gray brown, crystalline, dense, lithographic, mudstone.
5630-60 SHALE-30% Light gray, soft, earthy, limy, light gray, silty, soft, chalky.
LIMESTONE-70% Light to medium gray brown, crystalline, dense, lithographic, mudstone.
5660-90 SHALE-30% Light gray, soft, earthy, limy, light gray, silty, soft, chalky.
LIMESTONE-70% Light to medium gray brown, crystalline, dense, lithographic, mudstone.
5690-5720 SHALE-30% Light to medium gray, earthy, limy.

LIMESTONE-30% Light to medium gray, argillaceous, earthy, lithographic, mudstone.
ANHYDRITE-40% White, salt casts, chalky, crystalline.

5720-50 SHALE-20% Light to medium gray, earthy, limy.
LIMESTONE-10% Light to medium gray, argillaceous, earthy, lithographic, mudstone.
ANHYDRITE-70% White, salt casts, chalky, crystalline.

5750-80 LIMESTONE-30% Light to medium gray, argillaceous, earthy, lithographic, mudstone.
ANHYDRITE-70% White, salt casts, chalky, crystalline.

5780-5810 ANHYDRITE-80% White to chalky, crystalline, sandy, silty.
LIMESTONE-20% Light to medium gray, argillaceous, earthy, lithographic, mudstone.

5810-40 SALT-100% White, pink, crystalline, translucent, muddy potash.

5840-70 SALT-60% White, pink, crystalline, translucent, muddy potash.
SHALE-10% Light to medium gray, dolomitic, firm to hard, blocky.
LIMESTONE-10% medium to dark gray, dolomitic, lithographic, mudstone.
ANHYDRITE-10% White, chalky, crystalline, sandy, silty.

5870-5900 LIMESTONE-80% Light to medium gray, argillaceous, lithographic, mudstone.
ANHYDRITIC-20% White, sucrosic, crystalline, chalky.

5900-30 LIMESTONE-90% Light to medium gray, argillaceous, lithographic, mudstone.
ANHYDRITIC-10% White, sucrosic, crystalline, chalky.

5930-60 LIMESTONE-100% Light to medium gray brown, crystalline, dense, oolitic, packstone to grainstone, mudstone matrix.

18

5960-90 LIMESTONE-100% White, light brown, mottled, gray brown, fossil fragments, oolitic in parts, packstone to grainstone, mudstone matrix, chalky in part.

5990-6020 LIMESTONE-100% Light gray brown, white, chalky in part, mottled, fossil fragments, pellets, packstone to grainstone in part, mudstone matrix.

6020-50 LIMESTONE-100% Light gray brown, white, chalky in part, mottled, fossil fragments, pellets, packstone to grainstone in part, mudstone matrix.

6050-80 LIMESTONE-100% Light to medium gray, argillaceous, lithographic, mudstone, white, chalky in part.

6080-6110 LIMESTONE-100% Light to medium gray, medium to dark gray, lithographic, mudstone.

- 6110-40** **LIMESTONE-100%** \Medium to dark gray, argillaceous, lithographic, mudstone.
- 6140-70** **LIMESTONE-100%** White, light brown, mottled, very fine to micro crystalline, oolitic, dense, chalky, packstone to grainstone, mudstone matrix, tight, no show.
- 6170-6200** **LIMESTONE-100%** White, light brown, mottled, very fine to microcrystalline, oolitic, dense, chalky, packstone to grainstone, mudstone matrix, tight, no show.
- 6200-30** **LIMESTONE-100%** Light grayish brown, oolitic, very fine to microcrystalline, mudstone matrix, tight, no show.
- 6230-60** **LIMESTONE-100%** Light grayish brown, oolitic, very fine to microcrystalline, mudstone matrix, tight, no show, abundant white calcite fracture in fill.
- 6260-90** **LIMESTONE-100%** Tan, light brown, microcrystalline, sandy, salt casts, sucrosic texture, hard, tight.
- 6290-6320** **SHALE-30%** Red orange, red brown, silty, sandy.
SILTSTONE-20% Red brown, pink, arenaceous, calcareous, blocky, firm.
SANDSTONE-30% White, light red, pink, very fine to fine grained sub angular, fair to well sorted, clay matrix, calcareous cement, tight, no show.
LIMESTONE-20% Tan, light brown, microcrystalline, sandy, salt casts sucrosic texture, hard, tight.
- 6320-50** **SANDSTONE-100%** White, light red orange, fine to medium grained, sub angular to rounded, fair to poorly sorted, clay matrix, siliceous cement, 70% unconsolidated, brown oil stained, rainbows on wash water, strong hydrocarbon odor, yellow to white oil fluorescence, yellow to white milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity.
- 19**
- 6350-80** **SANDSTONE-100%** White, light red orange, fine to medium grained, sub angular to rounded, fair to poorly sorted, clay matrix, siliceous cement, 70% unconsolidated, brown oil stained, rainbows on wash water, strong hydrocarbon odor, yellow to white oil fluorescence, yellow to white milky cut fluorescence, yellow gold residue ring 10-14% intergranular porosity, fine to medium grained, 60% unconsolidated, show as above.
- 6380-6410** **SANDSTONE-100%** White, light red orange, fine to medium grained, sub angular to rounded, fine to poorly sorted, clay matrix, siliceous cement, 70% unconsolidated, brown oil stain, rainbows on wash water, strong hydrocarbon odor, yellow to white oil fluorescence, yellow to white milky cut fluorescence, yellow gold residual ring cut, 10-14% intergranular porosity, fine to medium grained, 70% unconsolidated, show as above.
- 6410-40** **SANDSTONE-100%** White, clear, quartzose, fine to medium grained, 98% unconsolidated, show as above.

- 6440-70** SANDSTONE-100% White, clear, quartzose, fine to medium grained, 90% unconsolidated, show as above.
- 6470-6500** SANDSTONE-100% White, clear, quartzose, fine to medium grained, 95% unconsolidated, show as above.
- 6500-30** SANDSTONE 100% White, clear, quartzose, fine to medium grained, 98% unconsolidated, no to weak show.
- 6530-60** SANDSTONE-100% Light red, pink, very fine to medium grained, sub angular to rounded, fair to poor sorted, clay matrix, siliceous cement, friable, 85% unconsolidated, no to weak show.
- 6560-90** SHALE-30% Red brown, brick red, silty, blocky, firm.
SILTSTONE-30% Brick red, arenaceous, argillaceous, firm to hard, calcareous.
SANDSTONE-40% White, clear, quartzose, very fine to medium grained, unconsolidated, no show.
- 6590-6620** SHALE-20% Red brown, brick red, silty, blocky, firm.
SILTSTONE-50% Brick red, arenaceous, argillaceous, firm to hard, calcareous.
SANDSTONE-30% White, clear, quartzose, very fine to medium grained, unconsolidated, no show.
- 6620-50** SANDSTONE-100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fine to poorly sorted, 98 % unconsolidated, no show

- 6650-80** SANDSTONE-100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, 98 % unconsolidated, no show.
- 6680-6710** SANDSTONE-100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, 98 % uncommon, no show.
- 6710-40** SANDSTONE-100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, 98 % unconsolidated, no show.
- 6740-64** SANDSTONE-100% White, clear, quartzose, fine to medium grained, sub angular to rounded, fair to poorly sorted, 98 % unconsolidated, no show.

EXACT Engineering, Inc.

www.exactengineering.com

415 S. Boston Ave., Suite 734, Tulsa, OK 74103 • (918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

CONFIDENTIAL PLEASE!

September 6, 2005

Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Wolverine Federal 17-6 (WF 8-1) well
Sec 17 T23S R01W
Sevier Co, UT
API# 43-041-30037
BLM Lease No. UTU-73528

Dear Mr. Doucet,

On behalf of Wolverine Gas and Oil Company of Utah, LLC, please find enclosed our daily completion activity reports for the subject well. Wolverine's Grand Rapids, Michigan office will send final completion form(s). We respectfully request that the enclosed information remain confidential.

Very Truly Yours,



Chris Nicely
Engineering Technician

copy without enclosures via email to:

Wolverine Gas & Oil Co of Utah, LLC: Helene Bardolph
EXACT Engineering, Inc. well file

RECEIVED

SEP 09 2005

DIV. OF OIL, GAS & MINING

Petroleum Engineering Consulting, Personnel & Jobsite Supervision
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, temporary personnel and field supervision

Daily Completion Report

Wolverine Gas & Oil Company of Utah, LLC

Wolverine Federal #17-6 (8-1) well

SE NW Sec 17 T23S - R01W

Sevier Co., Utah

page 1 of 4

New Completion

7" 23# HCP110 @ 6758' TD

PBTD 6713' on 5/28/05; CBL TD 6644'

Perfs - 6395-6415, 6430-6443, 6472-6484

Perfs - 6512-6518

ESP set @ na

GL to RKB: 17'

"TIGHT HOLE"

08/06/05 **FIRST COMPLETION REPORT** - during July cleaned location, installed 11" 5m x 7-1/16" 5m tbg head with (2) 2-1/16" 5m gate valves w/ single valve tree, move in 4% KCL treating fluid and flowback tanks. Offload 2-7/8" 6.5ppf N80 EUE 8rd new tbg. MIRU Pool Well Service Unit @ 3pm from WF 17-5. ND wellhead & flowline, NU 7-1/16" 5m BOP, set up pipe racks & load with tbg & strap. Note: CBL log run on 7/21/05 found good cement w/ TOC @ 4700'. Tomorrow's plan: TIH & circ with clean 4% KCL, Halco not available for acid pickle job CMOL: DL Naylor

Est Daily Completion Cost	\$ [REDACTED] (incl csg,FL,WH,tbg)	Completion AFE	\$ [REDACTED]
Est Cumulative Comp Cost	\$ [REDACTED]	Dryhole AFE	\$ [REDACTED]
Est Dryhole Cost	\$ [REDACTED]	Total Well Cost AFE	\$ [REDACTED]
Est Total Well Cost to date	\$ [REDACTED]		

08/07/05 RU lines, PT BOPE & csg to 4000 psi, OK. Make up 6-1/4" bit, 7" csg scraper, xo & pick up 218 jts tbg, tag btm @ 6713' kb. Pull up to 6710', close rams & PT to 2500 psi, OK. RU rig pump to frac tank, reverse circulate well with 265 bbls of 4% KCL w/ bactericide @ 5 bpm sending dirty water to pit. Hole clean after 250 bbls, RD. RU swab, swab fluid level down to 2600' fs, POOH w/ tbg, SDFN. Plan: perf & swab test natural. CMOL: DL Naylor

Est Daily Completion Cost	\$ [REDACTED]
Est Cumulative Comp Cost	\$ [REDACTED]

08/08/05 RU WellServ WLU. Perforated in four gun runs the (4) Upper Navajo 1 intervals listed below with 4 jpf (204 holes total) per Spectral Density - Dual Spaced Neutron log dated 27-May-2005. Used 4" slick gun, Titan 39 gm charges for .43" hole diam and 59" penetration. Third run 10' of shots did not fire, wait on new gun. 4th run perforated 6405 to 6415. RD WLU. Make up 7" TS RBP,RT, SS, 7" HD packer & TIH to 6194', leave pkrs swinging and SWI & SDFN. Tomorrow's plan: Swab each zone separately. CMOL: DL Naylor This am SITP 10 psig.

Set	Zone	Interval	Ft	Density	# holes	Charge	Diam	Pene
(1)	Upr Navajo 1	6395-6415	20	4 jpf	80	39gm	.43	59"
(2)	Upr Navajo 1	6430-6443	13	4 jpf	52	39gm	.43	59"
(3)	Upr Navajo 1	6472-6484	12	4 jpf	48	39gm	.43	59"
(4)	Upr Navajo 1	6512-6518	6	4 jpf	24	39gm	.43	59"

total	123 gross	51	204
-------	-----------	----	-----

Est Daily Completion Cost	\$ [REDACTED] (incl csg,FL,WH,tbg)	Completion AFE	\$ [REDACTED]
Est Cumulative Comp Cost	\$ [REDACTED]	Dryhole AFE	\$ [REDACTED]
Est Dryhole Cost	\$ [REDACTED] (incl 8-1)	Total Well Cost AFE	\$ [REDACTED]
Est Total Well Cost to date	\$ [REDACTED]		

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Daily Completion Report

Wolverine Gas & Oil Company of Utah, LLC
Wolverine Federal #17-6 (8-1) well
SE NW Sec 17 T23S - R01W
Sevier Co., Utah

page 2 of 4

New Completion
7" 23# HCP110 @ 6758' TD
PBTD 6713' on 5/28/05; CBL TD 6644'
Perfs - 6395-6415, 6430-6443, 6472-6484
Perfs - 6512-6518
ESP set @ na
GL to RKB: 17'

"TIGHT HOLE"

08/09/05 Zero SICP, TIH & set packer @ 6498, RU swab, fluid @ surface, made 7 swab runs and recovered 60 BLW, last 3 runs show oil, EFL 4400', made 8 more runs and recovered 14 BLF last sample 95% oil. EFL 5100'. Fill tubing w/30 bbl. 4% KCL water. Release packer, pull up & set plug @ 6498 & packer @ 6423. RU swab, made 14 swab runs and recovered 90 BLF, last 8 runs show oil, last two 100% oil. EFL 2900', pulling from 4000'. Left open to tank overnight, Started to flow @ 8pm. made 60 BO in 9 hrs. 6.6BPH. Plan: pull up & swab top zone. CMOL: DL Naylor
Est Daily Completion Cost \$ [REDACTED]
Est Cumulative Comp Cost \$ [REDACTED]

08/10/05 Zero FTP, Reverse tubing volume, release tools, pull up set plug @ 6422, set packer @ 6367 RU swab, fluid @ surface, made 7 swab runs and recovered 44 BLF, last 3 runs 60% oil, well started to flow 14 bbl. in 3 1/2 hrs. Release pkr. reverse tubing volume, retrieve RBP, pooh, ld tools. PU RBP w/ballcatcher & pkr. TIH set plug @ 6561, pull above perfs @ 6367. Leave well open to tank. Plan: Acidize. CMOL: DL Naylor
Est Daily Completion Cost \$ [REDACTED]
Est Cumulative Comp Cost \$ [REDACTED]

8/11/05 Zero TP, well did not flow. RU Halco, QC 7-1/2% acid mix @ 1.15 sg and 4% KCl @ 1.04 sg, OK. Hold safety mtg & test P&L to 6000 psi. Individually acidize each interval as follows:

#	Ft	Plan gals	Pmpd Gals	Break psi	BD bpm	ATR bpm	ATP psi	ISDP psi	5m psi	10m psi	15m psi	Comments
4	6	600	900	2830	.3	4	2450					Communicated
3	12	1200	1400	1850	.5	4	1900	1200				Communicated
2	13	1300	1500	2120	.6	4	1900	1200	450	225	125	Good ball action
1	20	2000	2500	1850	.8	4	1850	1200	400	190	100	Some ball action

Release tools & set packer @ 6367, reverse out w/ 60bbl. 4% kcl water, RU to swab, made 14 swab runs in 3 hrs, 1st oil cut on 1st run, 25%. Recovered 230 bbls fluid to tank. well started to flow. Last sample 95% oil. Made 210 BOF in 9 hrs. 23.3 BPH CMOL: DL Naylor

This am. Flow test.

Est Daily Completion Cost \$ [REDACTED]
Est Cumulative Comp Cost \$ [REDACTED]

8/12/05 Flow well on open chk w FTP 0 psi. Total daily recovery 575 BO 23.9 BPH
FIRST OIL SALES FROM WF17-6 TO HOLLY REFINERY ON 08/12/05
Total production to date 825 BO. Total sales 190 bbl

8/13/05 Flow well on open chk w FTP 0 psi. Total daily recovery 615 BO 25.6 BPH. Put on 10 chk. @ 1pm.

8/14/05 Flow well 23 hrs. FTP 180 on 10/64 chk. Total daily recovery 437 BO 19 BPH
Total production to date 1927 BO. Total sales 810 bbl

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Daily Completion Report

Wolverine Gas & Oil Company of Utah, LLC

Wolverine Federal #17-6 (8-1) well

SE NW Sec 17 T23S - R01W

Sevier Co., Utah

page 3 of 4

New Completion

7" 23# HCP110 @ 6758' TD

PBTD 6713' on 5/28/05; CBL TD 6644'

Perfs - 6395-6415, 6430-6443, 6472-6484

Perfs - 6512-6518

ESP set @ na

GL to RKB: 17'

"TIGHT HOLE"

8/15/05 Flow well 24 hrs. FTP 280 on 8/64 chk. Total daily recovery 373 BO 15.5 BPH

Total production to date 2300 BO. Total sales 941 bbl

CMOL: DL Naylor

This am. Pull pkr & plug, Run Arrow set pkr. & press gauges.

Est Daily Completion Cost \$ [REDACTED]

Est Cumulative Comp Cost \$ [REDACTED]

8/16/05 FTP 280 psi. reversed tubing volume. Released pkr POOH w/ tbg. LD tools, PU 7" Arrow set pkr, run perf tailpipe with digital BHP instruments in place, 2.25" SN min id, 1 jt. 2 7/8 tubing TIH w/205 jts. set pkr with EOT & gauges @ 6365' kb w 15k down. ND BOP, NU 3m adapter & tree, hook up flowlines and rig up swab. Swabbed 49 bbls fluid in 5 runs, last sample 100% oil, well flowing, RD swab, RD rig while flowing to tank #7. Move rig to WF 17-7 well. Well flowed 204 BO, On 10/64th choke and monitored hourly overnight as follows:

Time	chk	ftp	Bbl per hr	Sample description & comments
4:p	Open	120	22	100% oil; slight show gas
5:p	12	215	12	ditto
6:p	12	285	12	ditto
7:p	11	290	12	ditto
8:p	11	300	12	ditto
9:p	11	310	11	ditto
10:p	11	320	11	ditto
11:p	11	330	11	ditto
12:p	11	330	11	ditto
1:a	11	330	9	ditto
2:a	11	330	9	ditto
3:a	11	330	9	ditto

Total daily recovery 204 BO. Plan: Continue to flow well CMOL: DL Naylor

Total production to date 2504 BO. Total sales 1573.5 bbl

Est Daily Completion Cost \$ [REDACTED]

Est Cumulative Comp Cost \$ [REDACTED]

NOTE: FIRST OIL SALES FROM WF17-6 TO HOLLY REFINERY ON 08/12/05

8/17/05

Flow well on 14/64th chk. FTP 250 psi. Total daily recovery 416 BO 17.3 BPH

Total production to date 2920 BO. Total sales 2006 bbl

8/18/05

No report

8/19/05

Flow well on 16/64th chk. FTP 160 psi. Total daily recovery 452 BO 18.8 BPH

Total production to date 3372 BO. Total sales 2642 bbl

8/20/05

Flow well on 16/64th chk. FTP 160 psi. Total daily recovery 523 BO 21.8 BPH

Total production to date 3895 BO. Total sales 3235 bbl

8/21/05

Flow well on 16/64th chk. FTP 170 psi. Total daily recovery 548 BO 22.8 BPH

Total production to date 4443 BO. Total sales 3436 bbl

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Daily Completion Report

Wolverine Gas & Oil Company of Utah, LLC
Wolverine Federal #17-6 (8-1) well
SE NW Sec 17 T23S - R01W
Sevier Co., Utah

page 4 of 4

New Completion

7" 23# HCP110 @ 6758' TD
PBD 6713' on 5/28/05; CBL TD 6644'
Perfs - 6395-6415, 6430-6443, 6472-6484
Perfs - 6512-6518
ESP set @ na
GL to RKB: 17'

"TIGHT HOLE"

8/22/05 Flow well on 14/64th chk. FTP 190 psi. Total daily recovery 480 BO 20 BPH
Total production to date 4923 BO. Total sales 3891 bbl

8/23/05 Flowed 478 BO and no water in 24 hrs on a 14/64" chk, FTP 180 psi
Total production to date 5401 BO. Total sales 5275 CMOL: SRHash

8/24/05 Flowed 483 BO and no water in 24 hrs on a 14/64" chk, FTP 185 psi
Total production to date 5884 BO. Total sales 5586 CMOL: SRHash

8/25/05 Flowed 220 BO and no water in 11 hrs on a 15/64" chk from 6am to 5pm, FTP 180 psi
Shut well in for pressure buildup @ 5pm 8/23/05 until 8/27am
13 hr SITP 410 psi
Total production to date 6104 BO. Total sales 5708 CMOL: SRHash

8/26/05 SIFPBU - SITP 420 psi in 37 total hrs
Well shut in 24 hrs from 6am 8/24 to 6am 8/25
Total production to date 6104 BO. Total sales 5708 CMOL: SRHash

8/27/05 SIFPBU - SITP 420 psi in 61 total hrs
Well shut in 24 hrs from 6am 8/25 to 6am 8/26

8/28/05 SIFPBU - SITP 420 psi in 85 total hrs
Well shut in 24 hrs from 6am 8/26 to 6am 8/27

8/29/05 SIFPBU - SITP 420 psi in 93 total hrs; Well shut in 8 hrs from 6am 8/27 to 2pm 8/27; opened well on
18/64" chk @ 2pm on 8/27; Flowed 359 BO in 16 hrs on 18/64" chk, FTP 130 psi

8/30/05 Flowed 540 BO & tr wtr in 24 hrs on 18/64" chk, FTP 130 psi, drawing off approx 2% water before
each frac tank sale

8/31/05 Flowed 518 BO & tr wtr in 23 hrs on 18/64" chk, FTP 130 psi, shut-in 1 hr to RU PLS & retrieve BHP
gauges

09/01/05 Flowed 718 BO & tr wtr in 32 hrs on 18/64" chk chk from 6am 8/30 to 2pm 8/31, FTP 130 psi,
continue drawing off 2% water from 480 bbl frac tank before each sale

09/02/05 Flowed 542 BO & trace water in 24 hrs on 18/64" chk from 2pm 8/31 to 2pm 9/01, FTP 130 psi
Total production to date 8781 BO (less 1-2% water drawoff); Total frac tank sales from inception on
8/12/05 thru 2pm 9/1/05 is 7823 BO. Sales report turned over to production staff.

09/03/05 Flowed 574 BO & trace water in 26 hrs on 18/64" chk from 2pm 9/01 to 4pm 9/02, FTP 130 psi
Total production to date 9355. Switched flow from frac tanks thru flowline to main battery at 4pm.
Production now allocated daily based on well test. **TURNED WELL OVER TO PRODUCTION -
FINAL COMPLETION REPORT**

EXACT Engineering, Inc. 415 S. Boston, Suite 734, Tulsa, OK 74103 (918) 599-9400

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COPYForm 3160-4
(April 2001)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 2007

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		5. Lease Reg. No. UTU-73528							
b. Type of Completion: <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Revr. (Other _____)		6. If Indian, Allottee or Tribe Name							
2. Name of Operator Wolverine Gas and Oil of Utah, LLC		7. Unit or CA Agreement Name and No. Wolverine Federal Unit							
3. Address 55 Campus NW, Grand Rapids, MI 49503		8. Lease Name and Well No. Wolverine Federal 17-6 (8-1)							
3a. Phone No. (include area code) 616-488-1150		9. API Well No. 43-041-30037-00-00							
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface 1680' FNL & 2265' FWL, Sec 17 T23S R01W At top prod. interval reported below 764' FNL & 2477' FWL At total depth 721' FNL & 2458' FWL		10. Field and Pool, or Exploratory Covenant Field							
14. Date Spudded 04/16/2005	15. Date T.D. Reached 05/27/2005	16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod. 08/12/2005	17. Elevations (DF, RKB, RT, GL)* 5752, 5753, 5753, 5736						
18. Total Depth: MD 6765 TVD 6535	19. Plug Back T.D.: MD 6713 TVD 6504	20. Depth Bridge Plug Set: MD TVD							
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) HL Res. Induc. MD/TVD, Spec Den Dual Sp Neu MD/TVD, Dipen Monitor		22. Was well cured? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit report) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit copy)							
23. Casing and Liner Record (Report all strings set in well)									
Hole Size	Size/Grade	WL (W/L)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBB)	Cement Top*	Amount Pulled
30	20 1140	65	0	121		620 Class G	126	Surface Ctr	
17.5	13 7/8 J55	61	0	2,083		1650 HPM V	518	Surface Ctr	
12.25	9 5/8	47	0	6,094		230 50/50 poz	58	5100 CAT	
8.5	7	23	0	6,758		285 50/50 poz	55.8	4700 CAL	
		HE P110 LTC							
		HE P110 LTC							
24. Tubing Record									
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	
2 7/8	6364								
25. Producing Intervals									
Formation		Top	Bottom	Perforated Interval		Size	No. Holes	Perf. Status	
A) Navajo		6303	6765	6395-6415		.43	80	open	
B)				6430-6443		.43	52	open	
C)				6472-6484		.43	48	open	
D)				6512-6518		.43	24	open	
27. Acid, Fracture, Treatment, Cement Squeeze, etc.									
Depth Interval		Amount and Type of Material							
6395 - 6518		7 1/2% acid mix @ 1.15 sg and 4% KCl @ 1.04 sg, 6300 gal total							
28. Production - Interval A									
Date First Produced	Test Date	Hours Tested	Test Production	Oil RRI	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
04/12/2005	04/12/2005	240	→	4920	0	0	40	0	Flowing
Check Size	Thy. Press. Plog. SI	Cog. Press. SI	24 Hr. Rate	Oil RRI	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	Producing
16/64	170	0	→	492	0	0	0		
28a. Production - Interval B									
Date First Produced	Test Date	Hours Tested	Test Production	Oil RRI	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Check Size	Thy. Press. Plog. SI	Cog. Press. SI	24 Hr. Rate	Oil RRI	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

* (See instructions and spaces for additional data on page 2)

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Duplicate of
report rec'd 8/31/05

COPY**28b. Production - Interval C**

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Con. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Plwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Con. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Plwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Venting (gas too small to measure)

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (log) Markers

Twin Creek

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Navajo	6303	6767	Oil & water	Arapahoe Twin Creek Navajo	0 5,895 6,303

32. Additional remarks (Include plugging procedure):**33. Indicate which items have been attached by placing a check in the appropriate boxes:**

- ☒ Electrical/Mechanical Logs (1 full set req'd.)
 ☒ Geologic Report
 ☐ DST Report
 ☒ Directional Survey
☐ Sundry Notice for plugging and cement verification
☐ Core Analysis
☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) John Vroman

Title Manager of Geology

Signature

Date 08/29/2005

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Form 3160 4, page 2)

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DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM

Operator: Wolverine Gas and Oil Company of Utah, LLC
Address: 55 Campau NW, One Riverfront Plaza
city Grand Rapids
state MI zip 49503

Operator Account Number: N 1655
Phone Number: (616) 458-1150

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304130035	Wolverine Federal 17-4		NWSE	17	23S	1W	Sevier
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
C	14559	13995	1/31/2005		10/31/05		
Comments: Existing Participating Area expanded to include lands effective as of 9/1/2005 production. <u>NAVA</u> J							

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Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304130038	Wolverine Federal 17-5		SENE	17	23S	1W	Sevier
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
C	14626	13995	3/14/2005		10/31/05		
Comments: Existing Participating Area expanded to include lands effective as of 8/1/2005 production. <u>NAVA</u> J							

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Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304130037	Wolverine Federal 17-6 (WF 8-1)		NWNE	17	23S	1W	Sevier
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
C	14667	13995	4/16/2005		10/31/05		
Comments: Existing Participating Area expanded to include lands effective as of 8/1/2005 production. <u>NAVA</u> J							

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ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Edward A. Higuera

Name (Please Print)

Signature

Manager Development

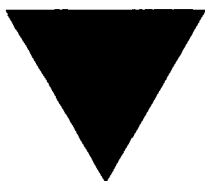
Title

10/31/2005

Date

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WOLVERINE OPERATING COMPANY
of Utah, LLC

Energy Exploration in Partnership with the Environment

December 28, 2005

Ms. Diana Whitney
Utah Division of Oil, Gas & Mining
1594 W. N. Temple, Suite 1210
Salt Lake City, UT 84114-5801

RE: Wolverine Federal #17-2
Wolverine Federal #17-3
Wolverine Federal #8-1

Dear Ms. Whitney:

Enclosed please find completion forms with minor corrections made for each of the above referenced wells.

If you have any questions or concerns, please don't hesitate to contact me.

Sincerely,

Helene Bardolph

cc: WF #17-2 (Well Log File)
WF #17-3 (Well Log File)
WF #8-1 (Well Log File)

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DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☒ FORM 8
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:
UTU-73528

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ OTHER _____
b. TYPE OF WORK: NEW WELL ☒ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER _____

7. UNIT or CA AGREEMENT NAME
Wolverine Fed Exploration Unit

8. WELL NAME and NUMBER:
Wolverine Federal #8-1

2. NAME OF OPERATOR:
Wolverine Gas and Oil Company of Utah, LLC

9. API NUMBER:
4304130037

3. ADDRESS OF OPERATOR:
55 Campau NW CITY Grand Rapids STATE MI ZIP 49503

PHONE NUMBER:
(616) 458-1150

10 FIELD AND POOL, OR WILDCAT
Exploratory Area

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 1680' FNL & 2265' FWL, Sec 17, T23S, R01W

11. QTR/QTR, SECTION, TOWNSHIP, RANGE,
MERIDIAN:
SE NW 17 23S 1W 26

AT TOP PRODUCING INTERVAL REPORTED BELOW: None

AT TOTAL DEPTH: 232' FSL & 991' FEL, Sec 8, T23S, R01W

12. COUNTY
Sevier

13. STATE
UTAH

14. DATE SPUDDED:
4/16/2005

15. DATE T.D. REACHED:
5/13/2005

16. DATE COMPLETED:
5/13/2005

ABANDONED ☒

READY TO PRODUCE ☐

17. ELEVATIONS (DF, RKB, RT, GL):
5752/5753/5753/5736

18. TOTAL DEPTH: MD 7,824
TVD 7,227

19. PLUG BACK T.D.: MD 2,500
TVD 2,374

20. IF MULTIPLE COMPLETIONS, HOW MANY? *

21. DEPTH BRIDGE MD
PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)

See attached list

23.

WAS WELL CORED?

NO ☒

YES ☐

(Submit analysis)

WAS DST RUN?

NO ☒

YES ☐

(Submit report)

DIRECTIONAL SURVEY?

NO ☐

YES ☒

(Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	concrete		0	121					
17.5	13 3/4" J55	61#	0	2,057	2,008	Prem 1,050	518	surface	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) None				
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
None	

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29. ENCLOSED ATTACHMENTS:

DIV. OF OIL, GAS & MINING

WELL STATUS:

☒ ELECTRICAL/MECHANICAL LOGS

☒ GEOLOGIC REPORT

☐ DST REPORT

☒ DIRECTIONAL SURVEY

☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION

☐ CORE ANALYSIS

☐ OTHER: _____

P & A

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL B (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in Item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
None				Arapien Twin Creek	0 6.984

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) John P. VronaTITLE Manager of GeologySIGNATURE DATE 7/8/2005

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

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COPY

Form 3160-5
(April 2004)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE- Other instructions on reverse side.**1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator **Wolverine Gas and Oil Company of Utah, LLC**3a. Address
55 Campau NW, Grand Rapids, MI 495033b. Phone No. (include area code)
616-458-1150

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface: 1680' FNL & 2265' FWL, Sec. 17, T23S, R01W, SLB&M
Bottom-Hole: 721' FNL & 2458' FEL, Sec. 17, T23S, R01W, SLB&M5. Lease Serial No.
UTU-73528

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
Wolverine Federal Exploration Unit8. Well Name and No.
Wolverine Federal 17-6 (WF 8-1)9. API Well No.
43-041-3003710. Field and Pool, or Exploratory Area
Covenant Field11. County or Parish, State
Sevier County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

A workover was performed on the Wolverine Federal 17-6 (WF 8-1) to increase production by cleaning out the well and acidizing the Navajo Formation perforated at 6395' - 6518'. The work detailed on the attached pages is summarized as follows:

- The well was circulated with workover fluid, wellhead removed, BOPE installed, and ESP equipment pulled. A bit and casing scraper were tripped to PBTD and well was circulated clean.
- The perforation interval of 6395' - 6415' was isolated then coiled tubing was used to flow test, pulse wash with treated water, recover the treating fluid, and retest the isolated interval.
- Three perforation intervals at 6430' - 6518' were isolated and pulse washed with treated water using coiled tubing after finding communication from 6415' to 6430'.
- All perforations (6395' - 6518') were jetted using coiled tubing and nitrogen to recover the treatment fluid and flow test.
- The perforation interval of 6512' - 6518' was pulse washed using 3 Bbls 15% HCl acid with additives. An attempt was made with little success to displace acid into perforations, so 3 Bbls acid remaining in tubing was circulated to surface.
- All perforations (6395' - 6518') were pulse washed with remaining 44 Bbls of acid and additives, and the acid was displaced into formation (pumped total of 2000 gallons 15% HCl acid).
- Spent acid was recovered using coiled tubing and jetting nitrogen.
- New ESP equipment and "Y-tool" (to allow production logging) were run in the well and the well was returned to production.

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Ellis M. Peterson

Title **Sr. Production Engineer**

Signature



Date

11/20/2006

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

NOV 27 2006

DIV OF OIL, GAS & MINING

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Daily Workover Report

page 1 of 4

Wolverine Gas & Oil Company of Utah, LLC
Wolverine Federal #17-6 (8-1) well
SE NW Sec 17 T23S - R01W
Sevier Co., Utah

"TIGHT HOLE"

- 10/11/06 **FIRST REPORT** – RU horizontal treater & test tank system to production test select perf intervals in subject well. Prepare 500 bbl 4% KCl filtered to 10 microns. MIRU Key Energy WSU #059, DD series 300, set one rig anchor, SDFN.
CMOL: Steve Hash
- 10/12/06 7am, wait on Key pump & tank until 1pm, off load & hookup, attempt to test pump & lines, pump plungers washed out, needs repair, released crew at 5pm; no rig charges for today. Prep to reverse hole with 4% KCL in am, NU BOPE then POOH with tbg & ESP.
CMOL: Steve Hash
- 10/13/06 5am, SITP 40 psi, SICP 300 psi. Hook up Action Hot Oil pump truck to csg, pump 212 bbls filtered 4% KCl down csg annulus @ 1.2bpm @ 750-1000psi (capacity 196 bbl to pump intake) displacing tbg down flowline to main treater, unknown volume returned to production. Switch to tbg, pump tbg capacity of 36 bbls down tbg with csg annulus returns down flowline @ 1 bpm @ 1400 psi. SD @ 9am, well static. ND wellhead, pick up tbg, NU 5m double hydraulic BOP w/ annular. RU Baker Centrilift cable spooler, POOH w/ 203 jts of 2-7/8" tbg spooling cable on reel. Cable damaged slightly in 2-3 spots, lower pigtail (under wellhead) contacts burned and needs replaced. LD pump, seal, motor & sensor assy. All downhole equipment visually inspected in excellent condition. No visible scale, corrosion, etc. Baker Petrolite on location and took oil sample from pump; oil sample from pump delivered to PSI next afternoon, all Baker ESP equipment delivered to Baker Centrilift Casper location next am for exam. Petrolite to obtain samples from pump shop. 246 BLWTR
CMOL: Steve Hash
- 10/14/06 SDFWE
-
- 10/15/06
- 10/16/06 7am, SICP zero, change out fluid pump, hook up & test pump, lines and flowback hookup to 1500 psi. OK Pick up csg scraper for 7" 23ppf csg & strap in hole with 202 jts tbg (6194.93). Pick up 15 jts and tag btm @ 6675' kb. Pick up to 6672' & reverse circ hole with 70 bbls of 4% KCl, recovered approx one quart of fine debris and scale substance from lower rathole. Spot 15 bbls of pickle fluid down tbg into rathole mixed with 1 gal Cortron RN-234 Biocide & 1 gal Bactron Biocide. Displace with 37 bbls 4% KCL. Laid down 12 jts tbg above perfs & SDFN @ 6pm.
CMOL: Steve Hash
- 10/17/06 7am, POOH w/ tbg & scraper, wait 4 hrs on packer change out. Hold tailgate safety mtg. Make up 7" TS retrievable bridge plug, HD packer, mechanical collar locator and SN w/ marker sub one jt above pkr. TIH with 2-7/8" tbg to 6350. RU Excell Wireline, RIH with GR-CCL, ran correlation strip, tbg tally 22 ft deep to log, made -22 ft correction in tally and placed tbg on depth with open hole log dated 5/27/2005. Set RBP @ 6422' below Upr Navajo zone #1, no room to test RBP. Set pkr @ 6343' above zone #1, ran GR-CCL check strip, OK. Landed tbg in BOP, csg full, closed pipe rams, pressured annulus & pkr to 750 psi, shut in, SWI.. Hold tailgate safety mtg, move in and spot Halco coiled tbg unit, crane, pump truck, nitrogen pump & nitrogen transport. SDFN @ 9pm.
CMOL: Steve Hash
- 10/18/06 6am, Rig up coiled tbg unit, install injector head to tbg, cool N2, hold tailgate safety mtg. Pressure test coil reel & flowback lines to 1800 psi, OK. 1pm, trip in hole w/ 1-1/2" coiled tbg to 6300' (pkr @ 6343') pumping 300 scfm N2, unload 13 bbls water from tbg, load up, pull out of hole to 5200' and begin unloading, trip

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Daily Workover Report

page 2 of 4

Wolverine Gas & Oil Company of Utah, LLC
Wolverine Federal #17-6 (8-1) well
SE NW Sec 17 T23S - R01W
Sevier Co., Utah

"TIGHT HOLE"

back in to 6300', jetting approx 10 bbls per hr, flowline 24/64" chk @ 220 psi, CT 1500 psi. Switch well thru test separator @ 4:30pm, jet zone #1 with 300 scfm N2 from 6300' and recover 31 BO & 34 BW in 4 hrs, 390 BPD total rate, CT 1300 psi, flowline 48/64" chk @ 100 psi, SD @ 8:30pm, POOH with CT, CT friction pressure 500 psi @ 300 scfm. Used 190,000 scf N2, SWI & remove injector from wellhead, SD @ 10pm
CMOL: Steve Hash

- 10/19/06 6am, install pulse tool to CT, NU injector to wellhead, pressure test reel to 2000 psi with 4%, TIH to 6300' in tbg, start pmpg at 1/2 bpm rate, incr to 1 bpm, TIH & tag RBP @ 6422', pressure washed zone #1 6395'-6415' with pulse tool @ 1bpm @ 4099 psi CT pressure for 4 passes in 12 min. Shut down @ 12 noon & POOH w/ CT. Remove injector, remove pulse tool, install jet nozzle, PT reel to 2000 psi, purge reel w/ N2, TIH pumping 300 scfm N2 unloading well. Stop at 6300' and jet well for 1 hr until stabilized, start test at 4pm. Recovered 7.5 BO & 12 BW in 1-1/2 hrs, 468 BPD total rate. Shut down, POOH w/ CT, blow reel down, remove injector from wellhead. Rig up tongs, release pkr, latch RBP, move RBP down to 6544 below all zones, set pkr @ 6520, zones 2,3 & 4 isolated. Pump down tbg @ 2 bpm, total 8 bbls, immediately communicated to zone #1 in annulus, shut down, SWIFN 7pm.
CMOL: Steve Hash
- 10/20/06 6am, Hold tailgate safety mtg, install jet nozzle to CT, install injector head to tbg. Pressure test coil reel & flow lines to 2000 psi, OK. 9am, trip in hole w/ 1-1/2" coiled tbg to 6400', unload water from tubing, jet zones #2,3,4 from 6430-6518', (pkr @ 6420') pumping 300 scf/m N2 w/ 1600 psi CT psi, and 87 wellhead psi. 12:30pm switch to test on 3/4" choke, recovered 3.75 bbl/oil and 41.75 bbl wtr in 1-1/2 hrs. 7" annulus on vacuum & communicated. 2:15pm POOH with coil tbg. 3:30pm Install pulse tool on CT and TIH. 4:55pm pressure washed zones with pulse tool @ 1bpm @ 3600 psi, wellhead 5psi and 7" annulus 200psi, made 4 passes in 1 hr, total water pumped 62 bbl. Shut down pump, 7" annulus pressure dropped to 150 psi, zero in 5 min. 6:00 pm POOH with CT and pulse tool, rig down injector head, secure wellhead, SDFN @ 7:30pm
CMOL: Jay Rasmussen
- 10/21/06 7am, release pkr and reset above all perfs at 6343, close rams & PT 7" csg & pkr to 500 psi, OK. Install jet nozzle to CT & install injector to well. Hold tailgate safety meeting, 09:15am TIH with CT to 6300' @ 300 SCFM N2, stabilized rate at 1350 psi CT, 35 wellhead psi, 12:00 pm switch well to test on 50/64 choke, recovered 20.6 bbl oil & 36 bbl wtr. in 3hrs. 454 BPD total rate. 3pm POOH with CT & remove injector from wellhead. 4pm release pkr, move to 6496' attempt to pump in zone #4 @ 1200 & 1500 psi, no leakoff, move pkr above zone #3, pump into zone at 300 psi and communicated to annulus, released pkr and reset on zone #4. Secure wellhead SDFN @ 6pm.
CMOL: Jay Rasmussen
- 10/22/06 7am RU CT & injector on wellhead. Hold safety meeting. Pressure test flowlines to 1765 psi. 8:10 am TIH with CT & 1 bpm pulse tool to 6520'. Spot 3 bbl 15% HCL w/ additives, 3 bbl water & 3 bbls acid to btm of CT. Make two pulse tool passes thru zone #4 perfs 6512 - 6518 @ 1 bpm using 3 bbls acid. PU CT to 5300' in 2-7/8" tbg, let acid soak for 45 minutes. 10:50am attempt to breakdown zone #4 beginning at 1400 psi injection pressure, could not pump in, leak off to 1120 psi in 5 min. Stage each 5 min for 6 hrs raising maximum injection pressure 150-200 psi each hr up to 3700 psi after 6 hrs. Zone will leak off 200-500 psi in 5 min each attempt but could not establish rate. At 5pm communicate to annulus at 3700 psi injection pressure. Attempt to pump down 7" annulus with rig pump while displacing 2 bbl acid into zone. Could not establish rate at less than 4000 psi. Circulate 2nd stage of 3 bbl acid out to rig tank, add neutralizer. POOH w/ CT & pulse tool. Reset pkr @ 6343' above all perfs, PT to 600 psi, OK. SWI & SDFN @ 8pm. Note: Acid mix is 15% HCl with 30gpt Morflo, 1gpt lowsulf-300M, 1gpt AS-9 anti-sludge, 6gpt HAI-404

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Daily Workover Report

page 3 of 4

Wolverine Gas & Oil Company of Utah, LLC
Wolverine Federal #17-6 (8-1) well
SE NW Sec 17 T23S - R01W
Sevier Co., Utah

"TIGHT HOLE"

inhibitor, 10gpt Fe-7A & 50gpt Fe-2 iron sequestering agents.
CMOL: Jay Rasmussen

- 10/23/06 7am RU CT & injector on wellhead, Hold safety meeting & pressure test flowlines to 2000 psi, 10:00 TIH with CT & pulsing jet, pressure wash @ 1 bpm with 11 bbls 15% HCl acid on zones #3 & #4 (6518-6472'), let acid soak for 30 minutes, 11:50 displace acid in perfs @ 992 psi @ 1 bpm ISIP 684 psi, 12:15 pressure wash @ 1 bpm with 11 bbls 15% HCl acid on zones #1 & #2 (6472-6395'), let acid soak, 12:45 displace acid in perfs @ 915 psi @ 1 bpm, 13:10 pressure wash with 11 bbls 15% HCl acid on zones #3 & #4 (6518-6472'), let acid soak, 13:40 displace acid in perfs @ 835 psi @ 1 bpm, 13:55 pressure wash @ 1 bpm with 11 bbls 15% HCl acid on zones #1 & #2 (6472-6395'), 14:30 displace acid in perfs @ 885 psi @ 1 bpm, 14:40 POOH with CT & pulsing jet, 16:00 TIH with CT & washing nozzle tag RBP @ 6544' pumping 300 scfm N/2 circulating fluids back to rig tank, total returns 142 bbl, 20:45 switch well to test on 50/64 choke, recovered 19 bbl oil & 48 bbl water in 3 hr test, 534 BPD total rate, 23:50 POOH with CT & wash nozzle, rig down CT unit and all equipment, secure wellhead & SDFN @ 01:30
CMOL: Jay Rasmussen
- 10/24/06 7am Released Halco, RU to pull tbg, hold safety meeting, hookup rig pump, fill 7" annulus, released pkr & rbp, POOH with tbg, pkr, & rbp, SWI, police location, ready to run ESP.
CMOL: Jay Rasmussen
- 10/25/06 7:30am Hold safety meeting, unhook flowlines and test manifolds, start hauling equipment to B pad.
CMOL: Jay Rasmussen
- 10/26/06 7am Hold safety meeting, Baker Centrilift on location splicing cable, pump won't be in till morning, move equipment to pad B.
CMOL: Jay Rasmussen
- 10/27/06 7am Rig up to run ESP & tubing; Baker Centrilift personnel on location, make up sensor, motor, seal, pump, Trico Y-tool w/ 1.5" blanking plug in place tested to 2000 psi (1.31" od instrument tube with 1.147" tube id for maximum 1" od instrument pass thru). Btm of instrument tube mule shoe btm and approx 6-8" above btm of sensor. 10am - RIH with ESP & 202 jts tbg strapping with 3 SS bands per jt, ND BOP, repair three cable spots and splice on new Taurus Engrg surface pigtail, NU wellhead, hookup flowlines and instrumentation, start well, well not pumping, downhole electric check out OK. SDFN @ 7pm
CMOL: Jay Rasmussen
- 10/28/06 7am RDMOSU, **TURN WELL OVER TO PRODUCTION @ 7am 10/28/06, FINAL WORKOVER REPORT, Thank You!**
CMOL: Jay Rasmussen

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Daily Workover Report

page 4 of 4

Wolverine Gas & Oil Company of Utah, LLC
Wolverine Federal #17-6 (8-1) well
SE NW Sec 17 T23S - R01W
Sevier Co., Utah

"TIGHT HOLE"***Production Tubing Setting - ran in hole on 10/27/2006***

	Description	SN	Length	Top @ kb
1	3.75" od, Centinel 2250 BHP sensor	55C0001082	4.10	
1	3.75"od, 65hp, 940v,52a,DMFI motor	21D0049271	20.76	6234 md
1	4.0"od, FSB3 DMPFS seal	31F0072478	5.60	6228 md
1	4.0"od, type P6, model 400PSHD, 163 stg pump w intake	102414921	16.60	6211 md
1	2-3/8" 4.7# N80 EUE 8rd tbg sub		10.17	
1	TRICO Y-tool, 2-3/8" EUE w/ blanking plug in place; 1.31" od instrument tube (drift 1.053") btm @ 6258'		4.04	
1	2-3/8" x 2-7/8" EUE 8rd xover		.77	
1	2-7/8" EUE 8rd SN (2.25" min id)		1.08	6195 md
1	2-7/8" 6.5# N80 EUE 8rd handling sub		6.22	
202	2-7/8" 6.5# N-80 EUE 8rd tbg joints		6196.19	
	Overall		6265.53	
	Set below KB 15' (GL to KB = 17') less 22' WL correct		-7.00	
	EOT set @ KB		6258.53	
	EOT 6259'kb md; intake @ 6195'kb md (6000' tvd)			
	Note: there is NO check or drain valve in this well			
	Fishing neck for plug is 5/8" rod catch-1" max tool o.d.			

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Form 3160-5
(April 2004)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE- Other instructions on reverse side.**1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator **Wolverine Gas and Oil Company of Utah, LLC**3a. Address
55 Campau NW, Grand Rapids, MI 495033b. Phone No. (include area code)
616-458-1150

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface: 1680' FNL & 2265' FWL, Sec. 17, T23S, R01W, SLB&M
Bottom-Hole: 721' FNL & 2458' FEL, Sec. 17, T23S, R01W, SLB&M

5. Lease Serial No.

UTU-73528

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

Wolverine Federal Exploration Unit

8. Well Name and No.

Wolverine Federal 17-6 (WF 8-1)

9. API Well No.

43-041-3003710. Field and Pool, or Exploratory Area
Covenant Field

11. County or Parish, State

Sevier County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

A recompletion workover is planned for the Wolverine Federal 17-6 (WF 8-1). It is planned to squeeze cement to isolate between existing perforation intervals, reperforate intervals that are currently producing, and perforate two additional Upper Navajo intervals at 6326' - 6340' and 6352' - 6363'. It is also planned to acid stimulate each perforated interval. This well will continue to produce only from the Upper Navajo following the recompletion. The proposed recompletion activities are expected to commence as early as October 1, 2007.

See the attached procedure for details of planned activities.

Attachment: Wolverine Federal 17-6 Recompletion Procedure

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Ellis M. PetersonTitle **Sr. Production Engineer**

Signature

Ellis M. Peterson

Date

09/05/2007

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

Accepted by the
Utah Division of
Oil, Gas and Mining
Office
BY: *[Signature]*

Date
Federal Approval Of This
Action Is Necessary

RECEIVED

SEP 06 2007

DIV. OF OIL, GAS & MINING

Wolverine Gas & Oil Company of Utah, LLC

Recompletion Procedure

Wolverine Federal 17-6

Covenant Field

Purpose: Cement exiting perforations and recomplete Upper Navajo

Note: This procedure is based on conditions existing prior to and situations and results anticipated during the well work activities. Actions and methods will deviate from this procedure as warranted by actual circumstances.

PERTINENT INFORMATION

Location: 1680' FSL, 2265' FWL (SENW)
Section 17, Township 23 South, Range 1 West
Sevier County, Utah

Elevation: 5736' GL, 5753' KB

TD: 6765'

PBTD: 6713' (cement top)

API No.: 43-041-30037

Casing: 13-3/8", 61.0# @ 2000', cemented to surface
9-5/8", 47.0#, HCP-110, LT&C @ 6094', cemented with 230 sks 50:50 Poz
7", 23.0#, HCP-110, LT&C @ 6758', cemented with 480 sks 50:50 Poz

Wellhead: Tubing Head Flange – 7-1/16" 5k w/ 2-7/8" EUE top connection

Tubing: 6246' of 2-7/8", 6.5#, N-80, EUE, 8rd w/ SN, x-over, and ESP equipment

Production Casing Specs: 7", 23.0#, HCP-110, LT&C, 8rd, ID: 6.366" Drift: 6.241"
Collapse: 5650 psi Burst: 8720 psi (80% 6976 psi)

Tubing Specs: 2-7/8", 6.5#, N-80, EUE, 8rd, ID: 2.441" Drift: 2.347"
Collapse: 11,170 psi Burst: 10,570 psi (80% 8456 psi)
Joint: 145,000 lbs (80% 116,000 lbs)

Capacities: 7", 23.0#: 0.03936 Bbls/ft 0.2210 ft³/ft
2-7/8", 6.5# 0.00579 Bbls/ft 0.0325 ft³/ft
7" x 2-7/8" Annulus 0.0313 Bbls/ft 0.1759 ft³/ft

BH Temperature: 183 °F @ 6508' MD (6300' TVD)

Current Upper Navajo Formation Completion Interval: 6395' – 6518' (8/8/05)

Current Perforations:

6395' - 6415' MD (6187' – 6207' TVD), 20', 80 holes
6430' - 6443' MD (6222' – 6235' TVD), 13', 52 holes
6472' - 6484' MD (6264' – 6276' TVD), 12', 48 holes
6512' - 6518' MD (6304' – 6310' TVD), 6', 24 holes

Perforation Depths are referenced to Halliburton SDL-DSN-GR dated 05/27/05.
CBL-GR-CCL dated 07/21/05 is 2' shallow to open-hole logs at perforation depth.

Proposed Upper Navajo Formation Completion Interval: 6326' – 6518'

Proposed Perforations:

6326' - 6340' MD (6118' – 6132' TVD), 14', 84 holes
6352' - 6363' MD (6144' – 6155' TVD), 11', 66 holes
6395' - 6415' MD (6187' – 6207' TVD), 20', 120 holes
6430' - 6444' MD (6222' – 6236' TVD), 14', 84 holes
6462' - 6484' MD (6254' – 6276' TVD), 22', 132 holes
6507' - 6518' MD (6299' – 6310' TVD), 11', 66 holes

PROCEDURE

1. Prepare location for workover.
2. Obtain a production log through the Y-Tool while producing the well.
3. Shut in well and disconnect power.
4. MIRUSU. Reverse circulate completion fluid to recover oil and kill well. Disconnect flow lines, ND wellhead, and NU BOP.
5. RU cable spoolers. POOH and lay down ESP equipment. RD cable spoolers.
6. Round trip a 6-1/8" bit and casing scraper to PBTD.
7. RIH with a packer and set it at 6500' (CBL depth). Using rig pump, attempt to establish a rate down tubing and circulate out casing (circulation not expected). Reset packer at 6450' and repeat (circulation expected). Reset packer at 6418' and repeat (circulation expected). Release packer, reverse circulate clean, and POOH with tubing and packer.
8. RU wireline service. Run a third party Gyro/CCL survey (directional survey) from PBTD to surface. Run and wireline set a 7" (23#) CICR at 6460' (CBL depth).
9. RIH with CICR stinger on 2-7/8" tubing and sting into CICR. RU cementing company and squeeze isolated perforations and behind casing with 25 sks of low fluid loss, premium cement.
10. POOH with tubing and stinger.
11. RU wireline unit. Run a 6-1/8" gauge ring to ~6430' and then run and set a 7" (23#) CICR at 6418' (CBL depth).
12. RIH with CICR stinger on 2-7/8" tubing and sting into CICR. RU cementing company and squeeze perforations and behind casing with 25 sks of low fluid loss, premium cement.
13. POOH with tubing and stinger.
14. RIH with a 6-1/8" and ten 4-3/4" drill collars on 2-7/8" tubing. RU power swivel and drill out with reverse circulation. Drill out cement and both CICR, circulate clean, and POOH laying down the drill collars.
15. RIH with a 6-1/8" bit and casing scraper. Tag PBTD and spot 10 Bbls of 10 ppg salt brine containing recommended biocide and corrosion inhibitor to fill casing below perforations. POOH with bit and casing scraper.

16. RU Halliburton wireline unit to run segmented radial cement bond log (SRCBL) under pressure. Run SRCBL/CCL/GR from 6600' to 6000' (on depth to OH logs) with 0, 1000, and 2000 psi casing pressure.
17. Perforate the bottom completion interval of Upper Navajo at 6507' - 6518' WLM with 6 SPF and 6' of Stimgun sleeve. RD and release wireline unit.
18. RIH with a RBP, retrieving head, packer, and seating nipple on 2-7/8" tubing. Set RBP below 6530' and packer at 6495'. RU and swab for rate and clean-up.
19. RU Halliburton and acid stimulate the isolated zone using 500 gallons of 15% FE acid for tube clean, 732 gallons of Clay-Safe H (5% HCl acid), 1100 gallons of Sandstone Completion Acid (13.5/1.5% HCl/HF), and 630 gallons of Clayfix 5 (5% Ammonium Chloride).
20. Open well and flow/swab back for cleanup.
21. Release packer and reset RBP at 6500' WLM. POOH with packer and tubing.
22. RU Halliburton wireline unit and perforate 6462' - 6484' WLM with 6 SPF and 10' of Stimgun sleeve.
23. RIH with a RBP retrieving head and packer. Set packer at 6450'. RU and swab the isolated zone for rate and clean-up.
24. RU Halliburton and acid stimulate the isolated zone using 1460 gallons of Clay-Safe H (5% HCl acid), 2200 gallons of Sandstone Completion Acid (13.5/1.5% HCl/HF), and 630 gallons of Clayfix 5 (5% Ammonium Chloride).
25. Open well and flow/swab back for cleanup.
26. Reset tools and check for behind-pipe communication between current top two zones, then reset RBP at 6450' WLM. POOH with packer and tubing.
27. RU Halliburton wireline unit and perforate 6430' - 6444' WLM with 6 SPF and 9' of Stimgun sleeve. RD and release wireline unit.
28. RIH with a RBP retrieving head, packer, and seating nipple on 2-7/8" tubing. Set packer at 6416'. RU and swab the isolated zone for rate and clean-up.
29. RU Halliburton and acid stimulate the isolated zone using 928 gallons of Clay-Safe H (5% HCl acid), 1400 gallons of Sandstone Completion Acid (13.5/1.5% HCl/HF), and 630 gallons of Clayfix 5 (5% Ammonium Chloride).
30. Open well and flow/swab back for cleanup.
31. Reset tools and check for behind-pipe communication between current top two zones, then reset RBP at 6423' WLM. POOH with packer and tubing.
32. RU Halliburton wireline unit and perforate 6395' - 6415' WLM with 6 SPF and 9' of Stimgun sleeve. RD and release wireline unit.
33. RIH with a RBP retrieving head, 2 joints of tubing, packer, and seating nipple on 2-7/8" tubing. Set packer above 6320'. RU and swab the isolated zone for rate and clean-up.
34. RU Halliburton and acid stimulate the isolated zone using 1328 gallons of Clay-Safe H (5% HCl acid), 2000 gallons of Sandstone Completion Acid (13.5/1.5% HCl/HF), and 630 gallons of Clayfix 5 (5% Ammonium Chloride).
35. Open well and flow/swab back for cleanup.

36. Reset tools and check for behind-pipe communication between current top two zones, then reset RBP at 6370' WLM. POOH with packer and tubing.
37. RU Halliburton wireline unit and perforate 6352' - 6363' WLM with 6 SPF and 6' of Stingun sleeve. RD and release wireline unit.
38. RIH with a RBP retrieving head, 2 joints of tubing, packer, and seating nipple on 2-7/8" tubing. Set packer above 6290'. RU and swab the isolated zone for rate and clean-up.
39. RU Halliburton and acid stimulate the isolated zone using 1328 gallons of Clay-Safe H (5% HCl acid), 2000 gallons of Sandstone Completion Acid (13.5/1.5% HCl/HF), and 630 gallons of Clayfix 5 (5% Ammonium Chloride).
40. Open well and flow/swab back for cleanup.
41. Reset tools and check for behind-pipe communication between current top two zones, then reset RBP at 6345' WLM. POOH with packer and tubing.
42. RU Halliburton wireline unit and perforate 6326' - 6340' WLM with 6 SPF and 9' of Stingun sleeve. RD and release wireline unit.
43. RIH with a RBP retrieving head, 2 joints of tubing, packer, and seating nipple on 2-7/8" tubing. Set packer above 6260'. RU and swab the isolated zone for rate and clean-up.
44. RU Halliburton and acid stimulate the isolated zone using 928 gallons of Clay-Safe H (5% HCl acid), 1400 gallons of Sandstone Completion Acid (13.5/1.5% HCl/HF), and 630 gallons of Clayfix 5 (5% Ammonium Chloride).
45. Open well and flow/swab back for cleanup.
46. Reset tools and check for behind-pipe communication between top two zones, then release packer and RBP and POOH with tubing and tools.
47. If well is capable of flowing, RIH with a tubing collar (or wireline re-entry guide), 7" (23#) packer, and SN on 2-7/8" tubing, and set packer at ~6260' WLM. Land tubing, ND BOP and NU wellhead. RU, swab well in, and turn to production.

If well is to be pumped, details for installing a Y-tool and pumping equipment will be provided.
48. RDMOSU.



**WOLVERINE GAS AND OIL COMPANY
OF UTAH, LLC**

Energy Exploration in Partnership with the Environment

February 15, 2008

Al McKee
BLM Utah State Office
PO Box 45155
Salt Lake City, Utah 84145-0155
United States of America

235 1W 17
RE: Sundry Notices - Wolverine Gas and Oil Company of Utah, LLC
Wolverine Federal 17-6, API 43-041-30037
Covenant Field, Sevier County, Utah

Dear Mr. McKee:

Wolverine Gas and Oil Company of Utah, LLC (Wolverine) respectfully submits the enclosed Sundry Notice and attachments in triplicate for the referenced well.

Please advise if you have any questions or need additional information.

Sincerely,

Ellis M. Peterson
Senior Production Engineer
Wolverine Gas and Oil

cc: UDOGM w/ attachments in duplicate

RECEIVED

FEB 19 2008

DIV. OF OIL, GAS & MINING

~~CONFIDENTIAL~~

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator **Wolverine Gas and Oil Company of Utah, LLC**3a. Address
55 Campau NW, Grand Rapids, MI 495033b. Phone No. (include area code)
616-458-1150

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface: 1680' FNL & 2265' FWL, Sec. 17, T23S, R01W, SLB&M
Bottom-Hole: 721' FNL & 2458' FEL, Sec. 17, T23S, R01W, SLB&M

5. Lease Serial No.

UTU-73528

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

Wolverine Federal Exploration Unit

8. Well Name and No.

Wolverine Federal 17-6 (WF 8-1)

9. API Well No.

43-041-3003710. Field and Pool, or Exploratory Area
Covenant Field

11. County or Parish, State

Sevier County, Utah**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

A recompleat workover was completed on the Wolverine Federal 17-6 (8-1) well. The existing perforations were cemented using 25 sacks of Class "G" cement to eliminate a channel behind casing. Productive intervals at 6507' - 6518', 6462' - 6484', 6430' - 6444', and 6395' - 6415' were reperforated with 6 SPF and acid stimulated. Additional Upper Navajo perforations were added at 6326' - 6334' at 6 SPF and a diagnostic fracture injection test was pumped into the 6326' - 6334' interval using 46 BW. The well was then returned to production with ESP artificial lift.

See the attached summary for details of the completed work.

Attachment: Workover Summary and Results

RECEIVED**FEB 19 2008****DIV. OF OIL, GAS & MINING**14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)**Ellis M. Peterson**Title **Sr. Production Engineer**

Signature



Date

02/15/2008**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

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Workover Summary and Results

Wolverine Federal 17-6

Covenant Field

November 1, 2007 to January 24, 2008

Purpose of Workover: Recomplete Upper Navajo

Work Summary:

1. Ran a fluid entry survey via the y-tool while producing the Upper Navajo.
2. Tagged new PBTD at 6666' KB.
3. Checked for communication behind casing by setting a packer, pumping down tubing, and observing casing for circulation. No communication with packer settings of 6498' and 6300', but there was communication at 6450' and 6421' (circulated 2.5 BPM at 1000-1100 psi).
4. Ran a Gyro directional survey from 6655'.
5. Set CICR at 6460'. Spotted 25 sacks of premium cement (15.8 ppg. 1.15 yield) and squeezed cement in channel behind casing to 2000 psi and circulated clean with end of tubing at 6445'.
6. Set CICR at 6418'. Could not establish circulation through CICR, indicating that cement from the first squeeze plugged perforations or channel.
7. Attempted to drill out cement and CICR using a power swivel, but deviated well caused excessive torque. Picked up a mud motor and drilled out cement and retainers.
8. Ran a Schlumberger ICB (CBL) from 6600' to 6000'.
9. Wireline perforated 6507' - 6518' and 6462' - 6484' with 6 SPF.
10. Halliburton acidized 6462' - 6518' with 1021 gallons 7.5% FE acid (7-1/2% HCl), 2311 gallons Clay Safe H (5% HCl) and 2467 gallons Sandstone Completion Acid (13.5% HCl/1.5% HF) split into three stages using 1.5 lb/perf of Benzoic Acid to divert. Treated at 2.1 BPM and 1919 psi.
11. Wireline perforated 6430' - 6444' with 6 SPF.
12. Checked for and found communication behind casing with packer settings of 6456' and 6422'.
13. Wireline perforated 6395' - 6415' with 6 SPF.
14. Halliburton acidized 6395' - 6518' with 1587 gallons FE (7-1/2% HCl), 2564 gallons Clay Safe H (5% HCl), and 3489 gallons Sandstone Completion Acid (13.5% HCl/1.5% HF) split into three stages using 2 lb/perf of Benzoic Acid to divert. Final treating rate was 2.1 BPM at 1356 psi.
15. Wireline perforated 6326' - 6334' with 6 SPF.
16. Halliburton pumped 46 BW for Diagnostic Fracture Injection Test at 4.6 BPM with initial pressure of 3042 psi and average pump pressure of 1768 psi. ISIP was 1275 psi. Well went on vacuum within two hours after injection.
17. Ran Weatherford Y-Tool and ESP. Placed well on production.
18. Plan to pump well while finalizing plans and evaluating a possible sand fracture stimulation through perforations at 6326' - 6334'.

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Active Perforations: (Upper Navajo)

6326' - 6334' MD (6118' - 6126' TVD), 8', 48 holes
6395' - 6415' MD (6187' - 6207' TVD), 20', 200 holes
6430' - 6444' MD (6222' - 6236' TVD), 14', 136 holes
6462' - 6484' MD (6254' - 6276' TVD), 22', 180 holes
6507' - 6518' MD (6299' - 6310' TVD), 110', 44 holes

Production before Workover: 102 BOPD and 293 BWPD with 1018 psi BFHP

Production after Workover: 217 BOPD and 396 BWPD with 1736 psi BFHP

Pre-WO Fluid Entry Survey results:

6395' - 6415': 91% of oil, 85% of water (260 BWPD)
6430' - 6444': 0% of oil, 0% of water
6462' - 6484': 0% of oil, 15% of water (46 BWPD)
6507' - 6518': 9% of oil, 0 % of water

Gyro Results: MD to TVD correction is -206' at perforation depths (compared to -208' with drilling directional surveys)

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Scientific Drilling
Rocky Mountain Operations

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DIV. OF OIL, GAS & MINING

KEEPER GYRO SURVEY REPORT

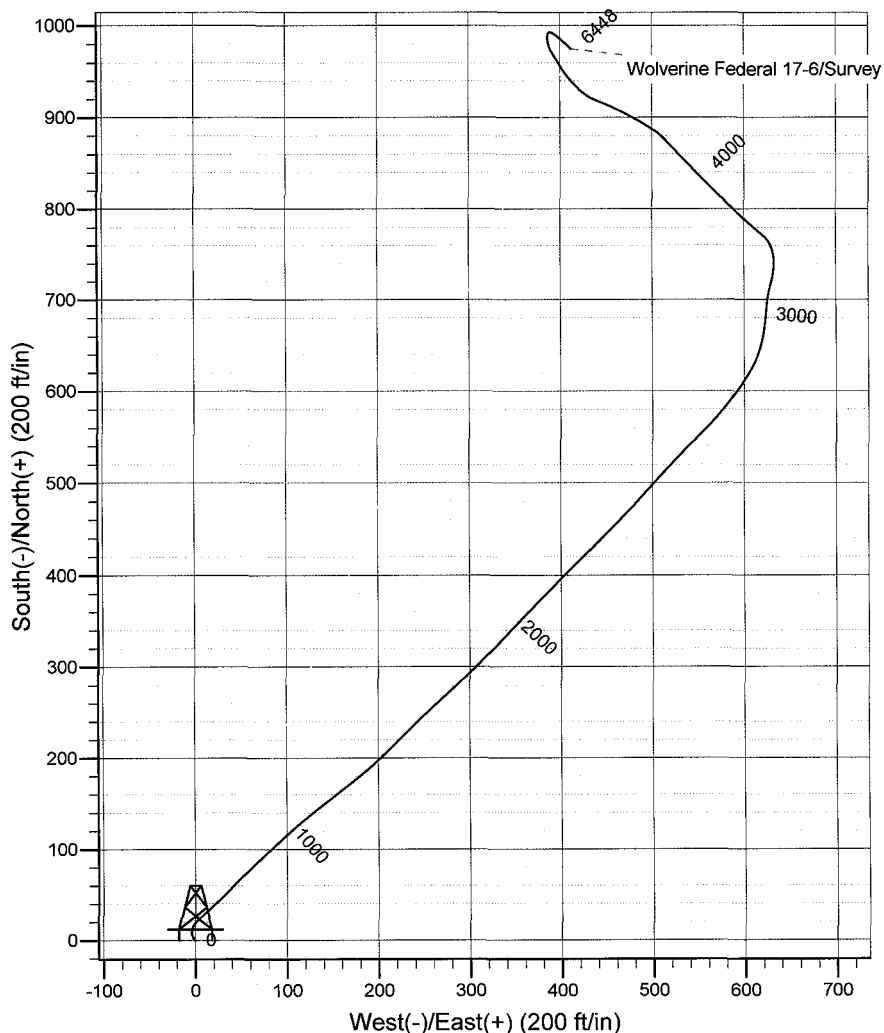
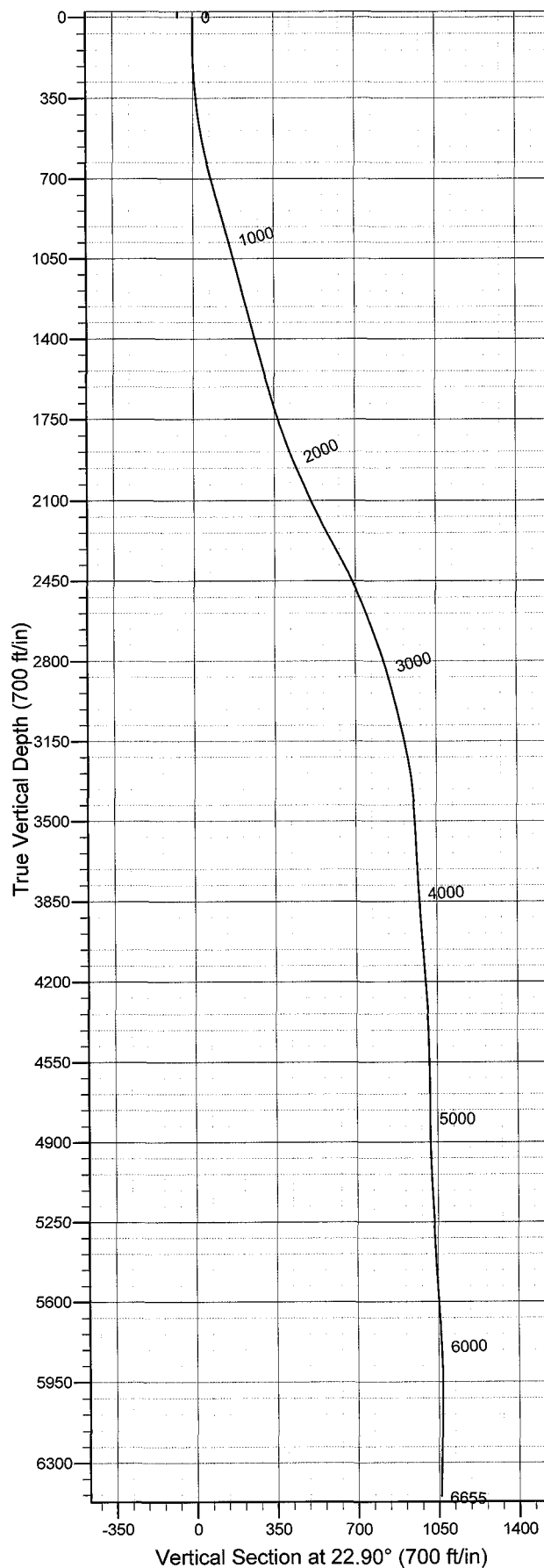
Prepared For:

Wolverine Gas & Oil Co. of Utah LLC
Wolverine Fed 17-6
Servier County, UT

Prepared By:

Julie Cruse, Rockies Region Engineer
Scientific Drilling
Rocky Mountain Region

Scientific Drilling International
7237 W. Barton Rd., Casper, WY 82604
P.O. Box 1600, Mills, WY 82644
(307) 472-6621
julie.cruse@scientificdrilling.com



WELL DETAILS: Wolverine Federal 17-6

+N/-S	+E/-W	Ground Level: GL 5753' & RKB 17' @ 5770.00ft (Lead 720)	North	East	Latitude	Longitude
0.00	0.00		172458.88	2161327.64	38° 48' 19.460 N	110° 56' 2.273 W

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Wolverine Federal 17-6, True North
Vertical (TVD) Reference: GL 5753' & RKB 17' @ 5770.00ft (Lead 720)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: GL 5753' & RKB 17' @ 5770.00ft (Lead 720)
Calculation Method: Minimum Curvature
Local North: True
Location: Sec 17 T23S R1W

PROJECT DETAILS: Servier County, UT

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302

Survey: Survey #1 (Wolverine Federal 17-6/OH)

Created By: Julie Cruse Date: 2007-12-10

Wolverine Gas & Oil Co. of Utah LLC

Servier County, UT

Wolverine Federal

Wolverine Federal 17-6

OH

Survey: Survey #1

Standard Survey Report

10 December, 2007

Scientific Drilling

Survey Report

Company: Wolverine Gas & Oil Co. of Utah LLC
Project: Servier County, UT
Site: Wolverine Federal
Well: Wolverine Federal 17-6
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Wolverine Federal 17-6
TVD Reference: GL 5753' & RKB 17' @ 5770.00ft (Lead 720)
MD Reference: GL 5753' & RKB 17' @ 5770.00ft (Lead 720)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Project	Servier County, UT		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site	Wolverine Federal, Sec 17 T23S R1W				
Site Position:		Northing:	172,458.88 ft	Latitude:	38° 48' 19.460 N
From:	Lat/Long	Easting:	2,161,327.64 ft	Longitude:	110° 56' 2.273 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.36 °

Well	Wolverine Federal 17-6					
Well Position	+N/-S	0.00 ft	Northing:	172,458.88 ft	Latitude:	38° 48' 19.460 N
	+E/-W	0.00 ft	Easting:	2,161,327.64 ft	Longitude:	110° 56' 2.273 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,753.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	2007-11-15	11.89	64.68	51,826

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	22.90	

Survey Program	Date	2007-12-10			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	6,655.00	Survey #1 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	

Survey	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100.00	0.13	285.65	100.00	0.03	-0.11	-0.01	0.13	0.13	0.00
	200.00	3.81	326.79	199.92	2.84	-2.04	1.82	3.71	3.68	41.14
	300.00	5.14	3.71	299.64	10.09	-3.57	7.91	3.10	1.33	36.92
	400.00	6.77	38.99	399.13	19.15	0.43	17.81	3.92	1.63	35.28
	500.00	11.23	49.39	497.88	30.07	11.54	32.19	4.73	4.46	10.40
	600.00	14.06	45.16	595.44	44.98	27.55	52.15	2.98	2.83	-4.23
	700.00	16.27	43.39	691.96	63.73	45.79	76.52	2.26	2.21	-1.77
	800.00	16.64	46.80	787.86	83.71	65.85	102.73	1.03	0.37	3.41
	900.00	16.58	46.33	883.69	103.36	86.60	128.92	0.15	-0.06	-0.47
	1,000.00	16.72	49.10	979.50	122.63	107.80	154.91	0.81	0.14	2.77
	1,100.00	16.57	51.87	1,075.31	140.86	129.89	180.30	0.81	-0.15	2.77
	1,200.00	16.76	52.59	1,171.11	158.42	152.56	205.30	0.28	0.19	0.72

Scientific Drilling

Survey Report

Company: Wolverine Gas & Oil Co. of Utah LLC
Project: Servier County, UT
Site: Wolverine Federal
Well: Wolverine Federal 17-6
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Wolverine Federal 17-6
TVD Reference: GL 5753' & RKB 17' @ 5770.00ft (Lead 720)
MD Reference: GL 5753' & RKB 17' @ 5770.00ft (Lead 720)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,300.00	16.75	51.75	1,266.86	176.10	175.32	230.44	0.24	-0.01	-0.84
1,400.00	16.11	47.28	1,362.78	194.43	196.84	255.70	1.42	-0.64	-4.47
1,500.00	16.54	44.84	1,458.75	213.94	217.07	281.54	0.81	0.43	-2.44
1,600.00	17.07	44.90	1,554.48	234.43	237.46	308.36	0.53	0.53	0.06
1,700.00	17.78	47.28	1,649.89	255.19	259.04	335.87	1.01	0.71	2.38
1,800.00	19.25	47.78	1,744.71	276.62	282.47	364.73	1.48	1.47	0.50
1,900.00	21.94	45.41	1,838.32	300.82	307.98	396.95	2.82	2.69	-2.37
2,000.00	24.53	43.16	1,930.20	329.08	335.49	433.69	2.74	2.59	-2.25
2,100.00	25.56	44.05	2,020.80	359.73	364.69	473.29	1.10	1.03	0.89
2,200.00	26.63	44.72	2,110.60	391.16	395.46	514.22	1.11	1.07	0.67
2,300.00	28.65	46.32	2,199.19	423.65	428.57	557.02	2.15	2.02	1.60
2,400.00	30.08	44.40	2,286.34	458.11	463.45	602.34	1.71	1.43	-1.92
2,500.00	28.62	41.88	2,373.50	493.85	496.97	648.31	1.91	-1.46	-2.52
2,600.00	26.96	43.76	2,461.97	528.06	528.64	692.14	1.88	-1.66	1.88
2,700.00	23.84	44.45	2,552.29	558.86	558.48	732.13	3.13	-3.12	0.69
2,800.00	20.96	37.89	2,644.75	587.41	583.63	768.22	3.81	-2.88	-6.56
2,900.00	19.40	32.66	2,738.62	615.52	603.58	801.87	2.38	-1.56	-5.23
3,000.00	16.25	18.08	2,833.85	642.82	616.89	832.20	5.44	-3.15	-14.58
3,100.00	15.14	7.11	2,930.14	669.09	622.85	858.72	3.16	-1.11	-10.97
3,200.00	13.86	5.27	3,026.96	693.97	625.57	882.70	1.36	-1.28	-1.84
3,300.00	12.88	15.85	3,124.26	716.62	629.71	905.18	2.63	-0.98	10.58
3,400.00	11.45	2.97	3,222.03	737.26	633.27	925.58	3.06	-1.43	-12.88
3,500.00	10.41	343.69	3,320.25	755.85	631.25	941.91	3.78	-1.04	-19.28
3,600.00	9.42	312.94	3,418.82	770.11	622.71	951.73	5.32	-0.99	-30.75
3,700.00	9.12	310.03	3,517.52	780.78	610.65	956.87	0.56	-0.30	-2.91
3,800.00	8.59	312.33	3,616.32	790.91	599.07	961.68	0.64	-0.53	2.30
3,900.00	9.09	313.15	3,715.14	801.34	587.78	966.90	0.52	0.50	0.82
4,000.00	9.70	313.72	3,813.79	812.56	575.93	972.63	0.62	0.61	0.57
4,100.00	10.31	315.40	3,912.27	824.76	563.56	979.05	0.68	0.61	1.68
4,200.00	10.62	315.88	4,010.61	837.75	550.86	986.07	0.32	0.31	0.48
4,300.00	10.43	316.87	4,108.93	850.97	538.26	993.35	0.26	-0.19	0.99
4,400.00	9.85	316.12	4,207.36	863.74	526.14	1,000.40	0.59	-0.58	-0.75
4,500.00	9.67	316.86	4,305.92	876.03	514.47	1,007.18	0.22	-0.18	0.74
4,600.00	9.63	302.63	4,404.52	886.67	501.68	1,012.00	2.38	-0.04	-14.23
4,700.00	9.89	300.10	4,503.07	895.49	487.20	1,014.49	0.50	0.26	-2.53
4,800.00	9.84	297.56	4,601.59	903.75	472.20	1,016.26	0.44	-0.05	-2.54
4,900.00	8.87	295.28	4,700.26	911.00	457.65	1,017.28	1.04	-0.97	-2.28
5,000.00	7.82	291.22	4,799.20	916.75	444.34	1,017.40	1.20	-1.05	-4.06
5,100.00	7.14	298.97	4,898.35	922.22	432.56	1,017.86	1.22	-0.68	7.75
5,200.00	7.12	312.59	4,997.59	929.43	422.56	1,020.60	1.69	-0.02	13.62
5,300.00	6.57	319.47	5,096.87	937.97	414.28	1,025.25	0.99	-0.55	6.88
5,400.00	5.82	322.73	5,196.29	946.35	407.49	1,030.33	0.83	-0.75	3.26
5,500.00	5.11	328.69	5,295.84	954.19	402.10	1,035.46	0.91	-0.71	5.96
5,600.00	5.30	328.60	5,395.42	961.94	397.38	1,040.76	0.19	0.19	-0.09
5,700.00	5.72	326.70	5,494.96	970.05	392.24	1,046.22	0.46	0.42	-1.90
5,800.00	4.78	343.71	5,594.55	978.21	388.34	1,052.23	1.81	-0.94	17.01
5,900.00	3.75	355.83	5,694.27	985.47	386.93	1,058.37	1.36	-1.03	12.12
6,000.00	2.32	14.20	5,794.13	990.70	387.19	1,063.28	1.71	-1.43	18.37
6,100.00	2.00	87.20	5,894.08	992.75	389.43	1,066.04	2.58	-0.32	73.00
6,200.00	2.34	120.28	5,994.01	991.80	392.93	1,066.53	1.28	0.34	33.08
6,300.00	2.92	127.69	6,093.90	989.22	396.71	1,065.62	0.67	0.58	7.41
6,400.00	3.23	130.19	6,193.76	985.84	400.88	1,064.13	0.34	0.31	2.50
6,500.00	3.22	133.10	6,293.60	982.10	405.08	1,062.33	0.16	-0.01	2.91
6,600.00	3.73	134.31	6,393.42	977.91	409.46	1,060.17	0.52	0.51	1.21

Scientific Drilling

Survey Report

Company: Wolverine Gas & Oil Co. of Utah LLC
Project: Sevier County, UT
Site: Wolverine Federal
Well: Wolverine Federal 17-6
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Wolverine Federal 17-6
TVD Reference: GL 5753' & RKB 17' @ 5770.00ft (Lead 720)
MD Reference: GL 5753' & RKB 17' @ 5770.00ft (Lead 720)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi-User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,655.00	4.03	138.84	6,448.29	975.21	412.01	1,058.67	0.78	0.55	8.24

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,655.00	6,448.29	975.21	412.01	Last Gyro Survey

Checked By: _____ Approved By: _____ Date: _____



Scientific Drilling
Rocky Mountain Operations

SUPPORT STAFF

D'Arcy Quinn - Rocky Mountain Region Manager
(307) 472-6621
darcy.quinn@scientificdrilling.com

Dee Bailey - Casper Base Manager
(307) 472-6621
dee.bailey@scientificdrilling.com

Jack Potter - Rifle Base Manager
(970) 625-8651
jack.potter@scientificdrilling.com

Sid Doiron - Directional Drilling Coordinator
(307) 472-6621
sid.doiron@scientificdrilling.com

Charles Paladino - Directional Drilling Coordinator
(970) 625-8651
charles.paladino@scientificdrilling.com

Fred Wrobleske - Directional Drilling Coordinator
(970) 625-8651
fred.wrobleske@scientificdrilling.com

Justin Stetz - MWD Coordinator
(307) 472-6621
Justin.stetz@scientificdrilling.com

Johnny Aguilar - MWD Coordinator
(970) 625-8651
johnny.aguilar@scientificdrilling.com

Operator:
D. Doney

7237 W. Barton Rd., Casper, WY 82604
P.O. Box 1600, Mills, WY 82644
(307) 472-6621

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007**SUNDRY NOTICES AND REPORTS ON WELLS****Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.****SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. UTU-73528
2. Name of Operator Wolverine Gas and Oil Company of Utah, LLC		6. If Indian, Allottee or Tribe Name
3a. Address 55 Campau NW, Grand Rapids, MI 49503	3b. Phone No. (include area code) 616-458-1150	7. If Unit or CA/Agreement, Name and/or No. Wolverine Federal Exploration Unit
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Surface: 1680' FNL & 2265' FWL, Sec. 17, T23S, R01W, SLB&M Bottom-Hole: 721' FNL & 2458' FEL, Sec. 17, T23S, R01W, SLB&M		8. Well Name and No. Wolverine Federal 17-6 (WF 8-1)
		9. API Well No. 43-041-30037
		10. Field and Pool, or Exploratory Area Covenant Field
		11. County or Parish, State Sevier County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input checked="" type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

A temporary plug and abandonment is planned for the Wolverine Federal 17-6 (WF 8-1) well. The ESP equipment will be pulled and wellbore circulated clean with completion fluid and corrosion inhibitor. A retrievable bridge plug will be set above the perforations, and the well will be shut-in. The proposed abandonment activity is expected to commence as early as October 14, 2010.

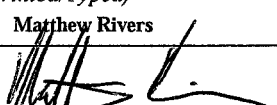
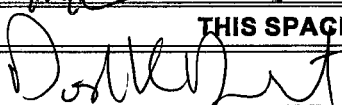
See the attached document for details of this planned procedure.

COPY SENT TO OPERATOR

Date: 10.11.2010

Initials: KS

COPY

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Matthew Rivers		Title Production Engineer
Signature 	Date 09/28/2010	
THIS SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by 	Title Pet. Eng.	Date 10/5/10
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office Dogon	Federal Approval Of This Action Is Necessary

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

RECEIVED

SEP 30 2010

DIV. OF OIL, GAS & MINING

Wolverine Gas & Oil Company of Utah, LLC
Temporary Abandonment Procedure

Wolverine Federal 17-6
Covenant Field

Purpose: Temporarily plug back and abandon well to remove ESP equipment and preserve casing.

PERTINENT INFORMATION

Location: 1680' FSL, 2265' FWL (SENW)
Section 17, Township 23 South, Range 1 West
Sevier County, Utah

Elevation: 5736' GL, 5753' KB

TD: 6765'

PBTD: 6666' (cement top)

API No.: 43-041-30037

Casing: 13-3/8", 61.0# @ 2000', cemented to surface
9-5/8", 47.0#, HCP-110, LT&C @ 6094', cemented with 230 sks 50:50 Poz
7", 23.0#, HCP-110, LT&C @ 6758', cemented with 480 sks 50:50 Poz

Wellhead: Tubing Head Flange – 7-1/16" 5k w/ 2-7/8" EUE top connection

Tubing: 6246' of 2-7/8", 6.5#, N-80, EUE, 8rd w/ SN, x-over, and ESP equipment

Production Casing Specs: 7", 23.0#, HCP-110, LT&C, 8rd, ID: 6.366" Drift: 6.241"
Collapse: 5650 psi Burst: 8720 psi (80% 6976 psi)

Tubing Specs: 2-7/8", 6.5#, N-80, EUE, 8rd, ID: 2.441" Drift: 2.347"
Collapse: 11,170 psi Burst: 10,570 psi (80% 8456 psi)
Joint: 145,000 lbs (80% 116,000 lbs)

Capacities: 7", 23.0#: 0.03936 Bbls/ft 0.2210 ft³/ft
2-7/8", 6.5# 0.00579 Bbls/ft 0.0325 ft³/ft
7" x 2-7/8" Annulus 0.0313 Bbls/ft 0.1759 ft³/ft

BH Temperature: 183 °F @ 6508' MD (6300' TVD)

Current Upper Navajo Formation Completion Interval: 6395' – 6518' (as of 1/10/08)

Current Upper Navajo Perforations:

6326' - 6334' MD (6118' – 6126' TVD), 8', 48 holes
6395' - 6415' MD (6187' – 6207' TVD), 20', 200 holes
6430' - 6444' MD (6222' – 6236' TVD), 14', 136 holes
6462' - 6484' MD (6254' – 6276' TVD), 22', 180 holes
6507' - 6518' MD (6299' – 6310' TVD), 11' 90 holes

Perforation Depths are referenced to Halliburton SDL-DSN-GR dated 05/27/05.

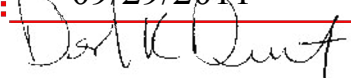
PROCEDURE

1. Remove fence, cover ground, and prepare location for workover. Spot one 500 Bbl tank and fill with completion fluid (CF) consisting of filtered produced water containing 21 gallons (1000 ppm) Baker Petrolite WAW 3003 non-ionic surfactant, 5.25 gallons (250 ppm) XC102W biocide, and 1.25 gallons (60 ppm) OSW5200 Oxygen Scavenger.
2. Shut in well and disconnect power.
3. MIRUSU. Reverse circulate completion fluid to recover oil and kill well. Circulate until wellbore contains only completion fluid. Disconnect flow lines, ND wellhead, and NU BOP.
4. RU cable spoolers. POOH and lay down ESP equipment. RD cable spoolers.
5. PU tubing as needed to round trip a 6-1/8" bit and casing scraper to PBTD. Tag PBTD and spot 20 Bbls of 9+ ppg salt brine containing recommended biocide and corrosion inhibitor to fill casing above perforations. POOH with bit and casing scraper.
6. RIH with a 7" (23#) RBP and retrieving head on 2-7/8" tubing. RU wireline and run a CCL/GR log through tubing to determine WLM to SLM depth correction. RD wireline and set RBP at 6300' WLM.
7. POOH and lay down retrieving head and 2-7/8" tubing. Completely fill wellbore with additional completion fluid as necessary.
8. ND BOP, and NU wellhead. Shut in well.
9. RDMOSU

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-73528
1. TYPE OF WELL Oil Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: WOLVERINE GAS & OIL COMPANY OF UTAH, LLC		7. UNIT or CA AGREEMENT NAME: WOLVERINE
3. ADDRESS OF OPERATOR: One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503		8. WELL NAME and NUMBER: WOLVERINE FED 17-6 (WF 8-1)
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1680 FNL 2265 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 17 Township: 23.0S Range: 01.0W Meridian: S		9. API NUMBER: 43041300370000
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		9. FIELD and POOL or WILDCAT: COVENANT
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 11/30/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input checked="" type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input checked="" type="checkbox"/> PRODUCTION START OR RESUME <input checked="" type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </div> <div style="width: 33%;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION </div> </div>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Wolverine Gas and Oil Co. of Utah, LLC plans to undertake a workover on the Wolverine Federal 17-6 in late November or December upon completing workovers on the Wolverine State 20-3 and Wolverine Federal 20-2. Evaluation of the Wolverine State 20-5 will also be concluded once TD is reached and the well will be completed accordingly before a workover begins on the WF 17-6. The Kings Meadow Ranches 17-14, which was drilled as a replacement well to the WF 17-6, was successfully worked over in August 2011. The lessons learned from the KMR 17-14 will be applied to the WF 17-6 well. The log character and position of the WF 17-6 is comparable to the KMR 17-14. The procedure for the WF 17-6 will entail drilling the CIBP out, set above the existing interval, while reverse circulating the cuttings, completion fluid and corrosion inhibitor out of the well bore. Swabbing data of selected perforation intervals will determine remaining potential of existing perforations and intervals deemed watered-out will be squeezed and abandoned. Behind pipe pay uphole in the Navajo interval will be perforated and stimulated with 7-1/2% HCL acid if necessary. Once the workover is completed the well will be put on pump with an ESP to resume production. A Y-tool will also be run with the pump for future production logging analysis.		
NAME (PLEASE PRINT) Helene Bardolph	PHONE NUMBER 616 458-1150	TITLE Engineering Administrative Assistant
SIGNATURE N/A	DATE 9/28/2011	

**Approved by the
Utah Division of
Oil, Gas and Mining**

Date: 09/29/2011

By: 

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. UTU-73528
2. Name of Operator Wolverine Gas and Oil Company of Utah, LLC		6. If Indian, Allottee or Tribe Name N/A
3a. Address 55 Campau NW, Grand Rapids, MI 49503	3b. Phone No. (include area code) 616-458-1150	7. If Unit or CA/Agreement, Name and/or No. Wolverine Federal Unit
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Surface: 1680' FNL & 2265' FWL, Sec. 17, T23S, R01W, SLB&M Bottom-Hole: 721' FNL & 2458' FEL, Sec. 17, T23S, R01W, SLB&M		8. Well Name and No. Wolverine Federal 17-6 (WF 8-1)
		9. API Well No. 43-041-30037
		10. Field and Pool, or Exploratory Area Covenant Field
		11. County or Parish, State Sevier County, Utah

RECEIVED

OCT 11 2011

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

DIV. OF OIL, GAS & MININ

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input checked="" type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	


13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Wolverine Gas and Oil Co. of Utah, LLC plans to undertake a workover on the Wolverine Federal 17-6 in late November or December upon completing workovers on the Wolverine State 20-3 and Wolverine Federal 20-2. Evaluation of the Wolverine State 20-5 will also be concluded once TD is reached and the well will be completed accordingly before a workover begins on the WF 17-6. The Kings Meadow Ranches 17-14, which was drilled as a replacement well to the WF 17-6, was successfully worked over in August 2011. The lessons learned from the KMR 17-14 will be applied to the WF 17-6 well. The log character and position of the WF 17-6 is comparable to the KMR 17-14.

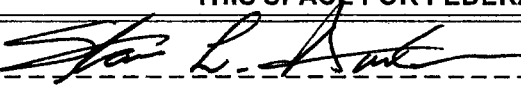
The procedure for the WF 17-6 will entail drilling the CIBP out, set above the existing interval, while reverse circulating the cuttings, completion fluid and corrosion inhibitor out of the well bore. Swabbing data of selected perforation intervals will determine remaining potential of existing perforations and intervals deemed watered-out will be squeezed and abandoned. Behind pipe pay update in the Navajo interval will be perforated and stimulated with 7-1/2% HCL acid if necessary. Once the workover is completed the well will be put on pump with an ESP to resume production. A Y-tool will also be run with the pump for future production logging analysis.

OCT 09 2011

Richfield BLM Field Office

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Matthew Rivers		Title Production Engineer
Signature 		Date 09/28/2011

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by 	Title SNRS	Date 10/6/2011
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office Richfield Field Office	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

SUNDRY # 12SLA00025

Conditions of Approval Attached

COPY

CONDITIONS OF APPROVAL

Company: Wolverine Gas and Oil Company of Utah, LLC.
Well No: Wolverine Federal 17-6 (WF 8-1)
Location: 1680' FNL & 2265' FWL, Section 17, T23S, R1W SLB&M
Sevier County, Utah
Lease No: UTU-73528
Agreement No: UTU-80800A

Conditions of Approval for the Sundry Notice submitted dated September 28, 2011.

1. Please submit a revised completion report for this well if the existing wellbore configuration changes as a result of the workover work undertaken.
2. Per 43 CFR 3162.4-1c Records & Reports: Not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160 - 5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JUL 20 2012

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator **Wolverine Gas and Oil Company of Utah, LLC**3a. Address
55 Campau NW, Grand Rapids, MI 495033b. Phone No. (include area code)
616-458-1150

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface: 1680' FNL & 2265' FWL, Sec. 17, T23S, R01W, SLB&M
Bottom-Hole: 721' FNL & 2458' FEL, Sec. 17, T23S, R01W, SLB&M5. Lease Serial No.
UTU-735286. If Indian, Allottee or Tribe Name
N/A7. If Unit or CA/Agreement, Name and/or No.
Wolverine Federal Unit8. Well Name and No.
Wolverine Federal 17-6 (WF 8-1)9. API Well No.
43-041-3003710. Field and Pool, or Exploratory Area
Covenant Field11. County or Parish, State
Sevier County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Workover
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

A workover was performed on the Wolverine Federal 17-6 and concluded on April 22, 2012 with unsuccessful results. Existing perforations from 6326' - 6518' were swabbed and subsequently squeezed with 75 bbls of polymer followed by a 75 sack balanced cement plug. Perforations were added at 6353' - 6363' and acidized with 500 gallons of 7-1/2% FE HCL and 50 ball sealers. An additional zone was perforated at 6306' - 6310'. Both zones swabbed with very little to no oil cut. See attached WBD and Daily Reports for additional details.

RECEIVED

JUN 28 2012

Richfield BLM Field Office

14. I hereby certify that the foregoing is true and correct
-
- Name (Printed/Typed)

Matthew Rivers

Title **Production Engineer**

Signature

Date

06/27/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

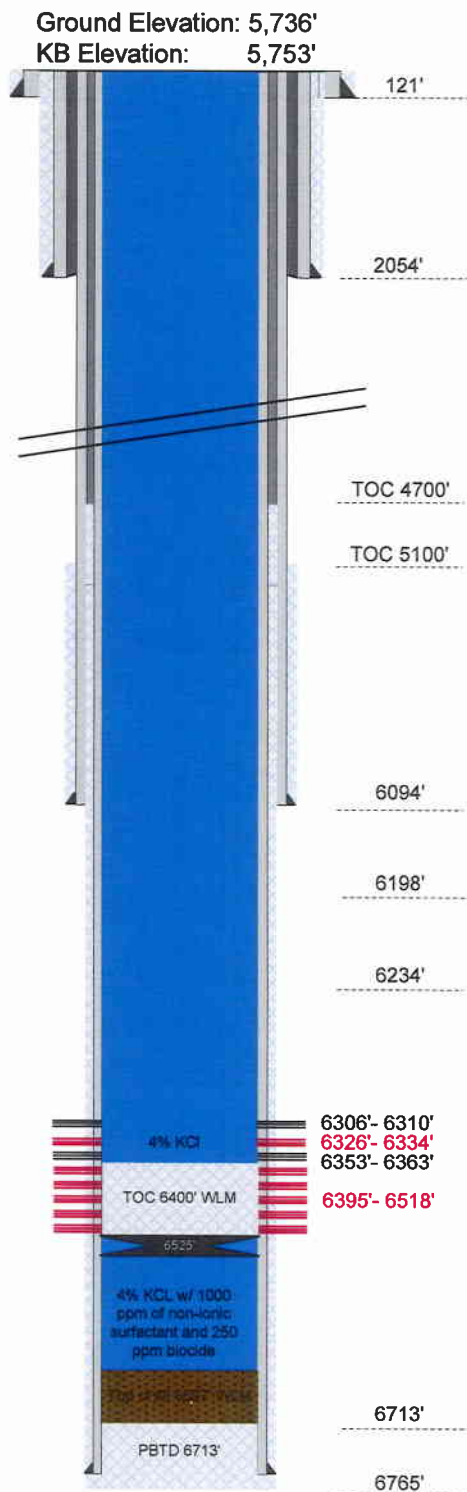
(Instructions on page 2)

Accepted For Record Purposes



Wolverine Federal 17-6 (WF 8-1)
API # 43-041-30037
Covenant Field
Section 17, T23S, R1W
Sevier County, Utah

(Not to Scale)



TD = 6765' MD (6557' TVD)

Deviated Well

Surface: 1680' FNL 2265' FWL, SE NW, 17-23S-1W
 Top of Pay (6303' MD): 704' FNL, 2477' FEL, NW NE, 17-23S-1W
 Total Depth (6765' MD): 721' FNL, 2458' FEL, NW NE, 17-23S-1W

Conductor Casing (06/05)

Size: 20", 0.25" wall
 Depth Landed: 121'
 Cement Data: Cemented to surface with 640 sks Class "G"

Surface Casing (4/22/05)

Size/Wt/Grade: 13 3/8", 61#, J-55, STC, 8rd
 Depth Landed: 2054' MD
 Cement Data: 595 sks Hifill (11.0 ppg, 3.96 cf/sk), 475 sks Prem. Plus (15.6 ppg, 1.18 cf/sk), Top job w/ 30 bbls Class "G"

Intermediate Casing (5/24/05)

Size/Wt/Grade: 9-5/8", 47#, HC-P110, LTC, 8rd
 Depth Landed: 6094' MD
 Cement Data: 230 sks 50:50 Poz (13.0? ppg, 1.71? cf/sk)

Production Casing (5/29/05)

Size/Wt/Grade: 7", 23#, HC-P110, LTC, 8rd
 Properties: 8720 psi burst, 6.241" drift, 6.366" ID, 0.0393 Bbl/ft Capacity
 Depth Landed: 6758' MD
 Cement Data: 255 sks 50:50 Poz (14.35? ppg, 1.27? cf/sk)

Navajo Perforations

6306' - 6310' MD (6100' - 6104' TVD), 4', 24 holes (4/20/12)
 6326' - 6334' MD (6120' - 6128' TVD), 8', 48 holes (squeezed)
 6353' - 6363' MD (6147' - 6157' TVD), 10', 60 holes (4/13/12)
 6395' - 6415' MD (6189' - 6209' TVD), 20', 200 holes (squeezed)
 6430' - 6444' MD (6224' - 6238' TVD), 14', 136 holes (squeezed)
 6462' - 6484' MD (6256' - 6278' TVD), 22', 180 holes (squeezed)
 6507' - 6518' MD (6301' - 6312' TVD), 11', 90 holes (squeezed)

Mid-Perf = 6335' MD (6129' TVD), 14' M (14' TV), 84 holes

Tubing (10/15/2010)

None

PBTB

(8/7/05) Tubing tagged cement top @ 6713' MD
 (10/16/06) Tagged fill @ 6675' MD
 (11/14/07) Tagged fill @ 6666' MD
 (10/11/10) Tagged fill @ 6597' WLM
 (4/5/12) Tagged fill @ 6597' WLM



Wolverine Federal 17-6 (WF 8-1)
API # 43-041-30037
Covenant Field
Section 17, T23S, R1W
Sevier County, Utah

Tubing Detail (10/14/2010)

Directional Data:

<u>MD</u>	<u>TVD</u>	<u>Incl.</u>	<u>MD</u>	<u>TVD</u>	<u>Incl.</u>
500	498	11.2	3000	2834	16.3
1000	980	16.7	3500	3320	10.4
1500	1459	16.5	4000	3814	9.7
1750	1697	18.5	4500	4305	9.7
2000	1930	24.5	5000	4799	7.8
2250	2155	27.6	5500	5296	5.1
2500	2374	28.6	6000	5794	2.3
2750	2599	22.4	6500	6294	3.2

Wellhead Information

- Tubing head flange is 7-1/16", 5M with a 2-7/8" EUE 8rd top connection.
- North valve in cellar is to the 13-3/8" x 9-5/8" annulus
- South valve in cellar is to the 9-5/8" x 7" annulus

Stimulation/Treatments

8/11/05:

6395' - 6518' w/ 6300 gal 7.5% HCl. Attempted to isolate and treat individual zones. Communicated between 6512' - 6518' MD, 6472' - 6484' MD, and 6430' - 6443' MD. BDP = 1850 – 2830 psi, ISDP = 1200 psi

10/23/06:

6395' - 6518' w/ 2100 gal 15% HCl with 30 gpt Morflo, 1 gpt lowsulf-300M, 1 gpt AS-9 anti-sludge, 6 gpt HAI-404 inhibitor, 10gpt Fe-7A & 50gpt Fe-2 iron sequestering agents. Communicated between all zones. Pulse washed all perforations using coiled tubing. FTP = 885 psi @ 1 BPM.

11/19/07:

Circulation cement squeeze with 25 sks of Class "G" cement and CICR at 6460'.

1/9/08:

6395' - 6518' w/ 1587 gal 7.5% FE, 2564 gal 5% Clay-Safe H, and 3489 gal 11.5%-1.5% Sandstone Completion Acid with diverter and three stages. FTP = 1356 psi @ 2.1 BPM.

4/18/12:

6353' - 6363' w/ 500 gal 7.5% FE HCL and 50 buoyant ball sealers, MTR = 0.6 BPM
MTP = 1000 psi ISIP = 984 psi

Notes

Surface Location: Latitude = 38° 48' 19.4600", Longitude = -111° 56' 02.2729"

(7/21/05): Cement top at 4702' on CBL-CCL-GR

(9/5/06): Available Logs: DLL/MSFL, SDL/DSN, EMI, CBL, Halliburton Directional Log

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007**SUNDRY NOTICES AND REPORTS ON WELLS***Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE- Other instructions on reverse side.**1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
Wolverine Gas and Oil Company of Utah, LLC3a. Address
55 Campau NW, Grand Rapids, MI 495033b. Phone No. (include area code)
616-458-1150

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface: 1680' FNL & 2265' FWL, Sec. 17, T23S, R01W, SLB&M
Bottom-Hole: 721' FNL & 2458' FEL, Sec. 17, T23S, R01W, SLB&M5. Lease Serial No.
UTU-735286. If Indian, Allottee or Tribe Name
N/A7. If Unit or CA/Agreement, Name and/or No.
Wolverine Federal Unit8. Well Name and No.
Wolverine Federal 17-6 (WF 8-1)9. API Well No.
43-041-3003710. Field and Pool, or Exploratory Area
Covenant Field11. County or Parish, State
Sevier County, Utah**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input checked="" type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Wolverine Gas & Oil Company of Utah, LLC completed a temporary abandonment on the Wolverine Federal 17-6 well July 10, 2012. 10 bbls of 9.2# salt brine with CRW-132 corrosion inhibitor were spotted at PBTD of 6400'. A CIBP was set at 6280' and 2 sacks of cement were dump bailed on top of the plug. The well was then circulated with 250 bbls of fresh water with CRW-132 corrosion inhibitor. The wellhead was nipped up and shut-in.

See activity report and WBD for additional details.

RECEIVED**JUL 23 2012****DIV. OF OIL, GAS & MINING**

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Matthew RiversTitle **Production Engineer**

Signature

Date

07/17/2012**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)



Covenant Field
Federal 17-6
API# 43-041-30037

SE/NW Sec 17 T23S R1W
Sevier County, Utah

7/9/2012

MIRUSU, ND wellhead, NU BOP. Pulled out of hole with tubing, PU and tripped in hole with casing scraper to PBTD at 6400'. RU pump lines and spotted 10 bbls of 9.2# salt brine containing Baker Petrolite CRW -132 corrosion inhibitor, RD pump lines and pulled out of hole with tubing. RU wireline unit, set CIBP at 6280' then dumped two sacks of cement on top. SWIFN

Plan to tag cement top / circulate corrosion inhibitor / lay down tubing.

7/10/2012

Opened well, 0 psi. Tripped in hole with tubing to cement top at 6270', picked up 4' and circulated well with 250 bbls of fresh water containing Baker Petrolite CRW-132 corrosion inhibitor. Pulled out of hole laying down tubing. ND BOP, NU wellhead. RDMOSU

Final Report

Supervisor: Tony E. Cook

Rig Operator:

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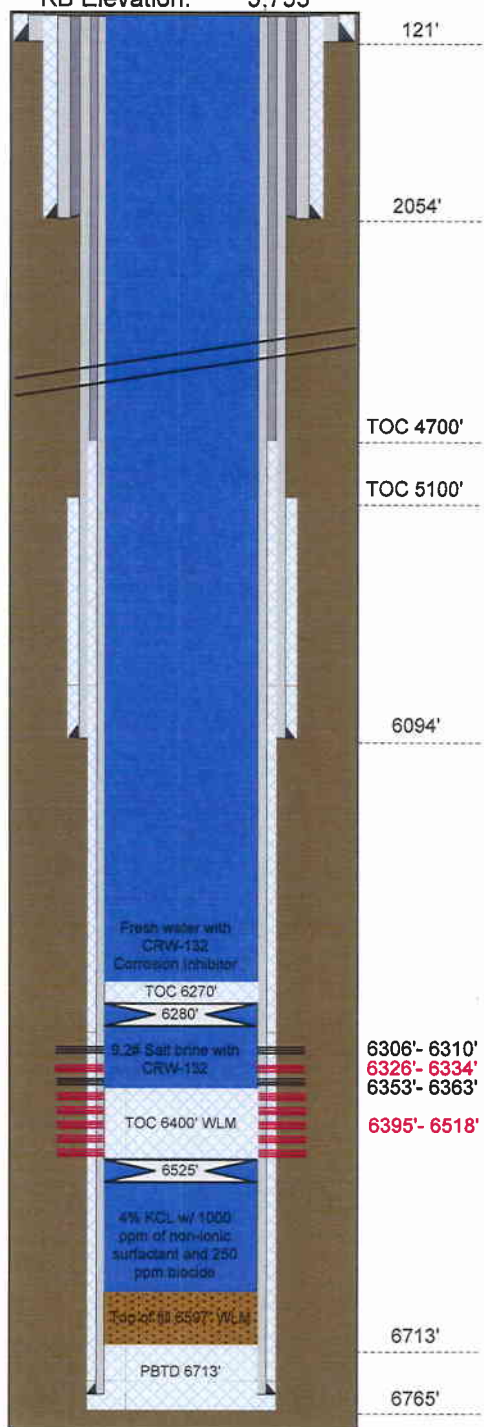
JUL 23 2012

DIV. OF OIL, GAS & MINING



Wolverine Federal 17-6 (WF 8-1)
API # 43-041-30037
Covenant Field
Section 17, T23S, R1W
Sevier County, Utah

Ground Elevation: 5,736'
 KB Elevation: 5,753'



TD = 6765' MD (6557' TVD)

(Not to Scale)

Deviated Well

Surface: 1680' FNL 2265' FWL, SE NW, 17-23S-1W
 Top of Pay (6303' MD): 704' FNL, 2477' FEL, NW NE, 17-23S-1W
 Total Depth (6765' MD): 721' FNL, 2458' FEL, NW NE, 17-23S-1W

Conductor Casing (06/05)

Size: 20", 0.25" wall
 Depth Landed: 121'
 Cement Data: Cemented to surface with 640 sks Class "G"

Surface Casing (4/22/05)

Size/Wt/Grade: 13 3/8", 61#, J-55, STC, 8rd
 Depth Landed: 2054' MD
 Cement Data: 595 sks Hifill (11.0 ppg, 3.96 cf/sk), 475 sks Prem. Plus (15.6 ppg, 1.18 cf/sk), Top job w/ 30 bbls Class "G"

Intermediate Casing (5/24/05)

Size/Wt/Grade: 9-5/8", 47#, HC-P110, LTC, 8rd
 Depth Landed: 6094' MD
 Cement Data: 230 sks 50:50 Poz (13.0? ppg, 1.71? cf/sk)

Production Casing (5/29/05)

Size/Wt/Grade: 7", 23#, HC-P110, LTC, 8rd
 Properties: 8720 psi burst, 6.241" drift, 6.366" ID, 0.0393 Bbl/ft Capacity
 Depth Landed: 6758' MD
 Cement Data: 255 sks 50:50 Poz (14.35? ppg, 1.27? cf/sk)

Navajo Perforations

6306' - 6310' MD (6100' - 6104' TVD), 4', 24 holes (4/20/12)
 6326' - 6334' MD (6120' - 6128' TVD), 8', 48 holes (squeezed)
 6353' - 6363' MD (6147' - 6157' TVD), 10', 60 holes (4/13/12)
 6395' - 6415' MD (6189' - 6209' TVD), 20', 200 holes (squeezed)
 6430' - 6444' MD (6224' - 6238' TVD), 14', 136 holes (squeezed)
 6462' - 6484' MD (6256' - 6278' TVD), 22', 180 holes (squeezed)
 6507' - 6518' MD (6301' - 6312' TVD), 11', 90 holes (squeezed)

Mid-Perf = 6335' MD (6129' TVD), 14' M (14' TV), 84 holes

Tubing (7/10/12)

None

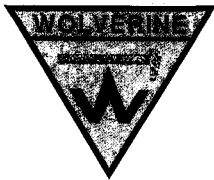
PBDT

(8/7/05) Tubing tagged cement top @ 6713' MD
 (10/16/06) Tagged fill @ 6675' MD
 (11/14/07) Tagged fill @ 6666' MD
 (10/11/10) Tagged fill @ 6597' WLM
 (4/5/12) Tagged fill @ 6597' WLM

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JUL 23 2012

DIV. OF OIL, GAS & MINING



Wolverine Federal 17-6 (WF 8-1)
API # 43-041-30037
Covenant Field
Section 17, T23S, R1W
Sevier County, Utah

Tubing Detail (7/10/12)

No tubing in well

Directional Data:

<u>MD</u>	<u>TVD</u>	<u>Incl.</u>	<u>MD</u>	<u>TVD</u>	<u>Incl.</u>
500	498	11.2	3000	2834	16.3
1000	980	16.7	3500	3320	10.4
1500	1459	16.5	4000	3814	9.7
1750	1697	18.5	4500	4305	9.7
2000	1930	24.5	5000	4799	7.8
2250	2155	27.6	5500	5296	5.1
2500	2374	28.6	6000	5794	2.3
2750	2599	22.4	6500	6294	3.2

Wellhead Information

- Tubing head flange is 7-1/16", 5M with a 2-7/8" EUE 8rd top connection.

Stimulation/Treatments

8/11/05:

6395' - 6518' w/ 6300 gal 7.5% HCl. Attempted to isolate and treat individual zones. Communicated between 6512' - 6518' MD, 6472' - 6484' MD, and 6430' - 6443' MD. BDP = 1850 - 2830 psi, ISDP = 1200 psi

10/23/06:

6395' - 6518' w/ 2100 gal 15% HCl with 30 gpt Morflo, 1 gpt lowsulf-300M, 1 gpt AS-9 anti-sludge, 6 gpt HAI-404 inhibitor, 10gpt Fe-7A & 50gpt Fe-2 iron sequestering agents. Communicated between all zones. Pulse washed all perforations using coiled tubing. FTP = 885 psi @ 1 BPM.

11/19/07:

Circulation cement squeeze with 25 sks of Class "G" cement and CICR at 6460'.

1/9/08:

6395' - 6518' w/ 1587 gal 7.5% FE, 2564 gal 5% Clay-Safe H, and 3489 gal 11.5%-1.5% Sandstone Completion Acid with diverter and three stages. FTP = 1356 psi @ 2.1 BPM.

4/10/12:

6326'-6518' w 75 bbls of Halliburton H2Zero polymer at 1 BPM and 1000 psi. Over displaced w/ 25 bbls of 4% KCL.

4/18/12:

6353' - 6363' w/ 500 gal 7.5% FE HCL and 50 buoyant ball sealers, MTR = 0.6 BPM
MTP = 1000 psi ISIP = 984 psi

Notes

Surface Location: Latitude = 38° 48' 19.4600", Longitude = -111° 56' 02.2729"
(7/21/05): Cement top at 4702' on CBL-CCL-GR
(9/5/06): Available Logs: DLL/MSFL, SDL/DSN, EMI, CBL, Halliburton Directional Log

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JUL 23 2012

DIV. OF OIL, GAS & MINING

TEC 7/10/2012

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

JUL 20 2012

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator **Wolverine Gas and Oil Company of Utah, LLC**3a. Address
55 Campau NW, Grand Rapids, MI 495033b. Phone No. (include area code)
616-458-1150

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface: **1680' FNL & 2265' FWL, Sec. 17, T23S, R01W, SLB&M**
Bottom-Hole: **721' FNL & 2458' FEL, Sec. 17, T23S, R01W, SLB&M**5. Lease Serial No.
UTU-735286. If Indian, Allottee or Tribe Name
N/A7. If Unit or CA/Agreement, Name and/or No.
Wolverine Federal Unit8. Well Name and No.
Wolverine Federal 17-6 (WF 8-1)9. API Well No.
43-041-3003710. Field and Pool, or Exploratory Area
Covenant Field11. County or Parish, State
Sevier County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input checked="" type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Wolverine plans to temporarily abandon the Wolverine Federal 17-6 well by August, 2012 for the maximum allowable 3 year time period with a start date of April 22, 2012. See attached procedure for Wolverine's proposed plan.

Accepted by the
Utah Division of
Oil, Gas and Mining
For Record Only

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JUN 28 2012

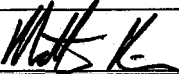
Richfield BLM Field Office

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Matthew Rivers

Title **Production Engineer**

Signature

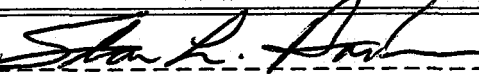


Date

06/27/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by



Title

SNRS

Date

7/17/2012

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Richfield Field Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

Conditions of Approval Attached

CONDITIONS OF APPROVAL

Company: Wolverine Gas and Oil Company of Utah, LLC.
Well No: Wolverine Federal 17-6 (WF 8-1)
Location: 1680' FNL & 2265' FWL, Section 17, T23S, R1W SLB&M
Sevier County, Utah
Lease No: UTU-73528
Agreement No: UTU-80800A

Conditions of Approval for the Sundry Notice submitted dated June 27, 2012.

"Wolverine's request to temporarily abandon the Wolverine Federal 17-6 (WF 8-1) well is approved for a one-time, one-year period until 7/17/13. On (or before) 7/17/13 the operator shall take action to either 1) resume operations on the well, 2) submit a justification for an additional one-year extension, or 3) submit plans to permanently plug and abandon the wellbore per BLM regulations."

Wolverine Gas & Oil Company of Utah, LLC
Temporary Abandonment Procedure

Wolverine Federal 17-6
Covenant Field

Purpose: Temporarily plug back and abandon well to preserve casing.

PERTINENT INFORMATION

Location: 1680' FSL, 2265' FWL (SENW)
Section 17, Township 23 South, Range 1 West
Sevier County, Utah

Elevation: 5736' GL, 5753' KB

TD: 6765'

PBTD: 6400' (cement top)

API No.: 43-041-30037

Casing: 13-3/8", 61.0# @ 2000', cemented to surface
9-5/8", 47.0#, HCP-110, LT&C @ 6094', cemented with 230 sks 50:50 Poz
7", 23.0#, HCP-110, LT&C @ 6758', cemented with 480 sks 50:50 Poz

Wellhead: Tubing Head Flange – 7-1/16" 5k w/ 2-7/8" EUE top connection

Tubing: 6246' of 2-7/8", 6.5#, N-80, EUE, 8rd w/ SN, x-over, and ESP equipment

Production Casing Specs: 7", 23.0#, HCP-110, LT&C, 8rd, ID: 6.366" Drift: 6.241"
Collapse: 5650 psi Burst: 8720 psi (80% 6976 psi)

Tubing Specs: 2-7/8", 6.5#, N-80, EUE, 8rd, ID: 2.441" Drift: 2.347"
Collapse: 11,170 psi Burst: 10,570 psi (80% 8456 psi)
Joint: 145,000 lbs (80% 116,000 lbs)

Capacities: 7", 23.0#: 0.03936 Bbls/ft 0.2210 ft³/ft
2-7/8", 6.5# 0.00579 Bbls/ft 0.0325 ft³/ft
7" x 2-7/8" Annulus 0.0313 Bbls/ft 0.1759 ft³/ft

BH Temperature: 183 °F @ 6508' MD (6300' TVD)

Current Upper Navajo Formation Completion Interval: 6395' – 6518' (as of 1/10/08)

Current Upper Navajo Perforations:

6306' - 6310' MD (6100' – 6104' TVD), 4' 24 holes (4/20/12)
6326' - 6334' MD (6118' – 6126' TVD), 8', 48 holes (squeezed)
6353' - 6363' MD (6147' - 6157' TVD), 10', 60 holes (4/13/12)
6395' - 6415' MD (6187' – 6207' TVD), 20', 200 holes (squeezed)
6430' - 6444' MD (6222' – 6236' TVD), 14', 136 holes (squeezed)
6462' - 6484' MD (6254' – 6276' TVD), 22', 180 holes (squeezed)
6507' - 6518' MD (6299' – 6310' TVD), 11' 90 holes (squeezed)

Perforation Depths are referenced to Halliburton SDL-DSN-GR dated 05/27/05.

PROCEDURE

1. Remove fence, cover ground, and prepare location for workover. Spot two 500 Bbl tanks and fill with completion fluid (CF) consisting of filtered produced water containing, 5.25 gallons (250 ppm) XC102W biocide, and 1.25 gallons (60 ppm) OSW5200 Oxygen Scavenger.
2. MIRUSU, NU BOP and ND wellhead.
3. PU 2-7/8" tubing as needed to round trip a 6-1/8" bit and casing scraper to PBTD. Tag PBTD and spot 5 Bbls of 9+ ppg salt brine containing recommended biocide and corrosion inhibitor to fill casing above perforations. POOH with bit and casing scraper.
4. RU wireline unit with lubricator. Set a 7" (23#) CIBP at 6280' and dump bail 2 sacks of cement on top of the CIBP. RD wireline.
5. RIH with 2-7/8" tubing and tag CIBP and cement at ~6270'. Pull up one joint of tubing and circulate well with 250 bbls of completion fluid. POOH and lay down tubing.
6. ND BOP, and NU wellhead. Shut in well.
7. RDMOSU



Covenant Field
Federal 17-6
API# 43-041-30037

SE/NW Sec 17 T23S R1W
Sevier County, Utah

3/28/2012 Roustabouts removed well fencing and prepped area for workover rig. Hauled in frac tanks and started plumbing in flow back and pump lines.

3/29/2012 Hauled in rig pump, cat walk and base beam. Started filling frac tanks with water and KCL, finished plumbing in flow back and pump lines.
Plan to MIRUSU on Monday.

3/30/2012 No activity

3/31/2012 No activity

4/1/2012 No activity

4/2/2012 MIRUSU, ND wellhead, NU BOP's

4/3/2012 Finished rigging up service unit, opened well, picked up and run in hole with bit, ten 4 3/4" drill collars and 160 Joints of 2 7/8" N-80 tubing. SWIFN
Note: Partial downtime due rig repairs
Plan to finish tripping in hole with tubing, drill out CICR, POOH.

4/4/2012 Opened well, finished picking up tubing off racks, tagged cement top at 6294'. RU power swivel and drilled out cement and CICR, circulated well clean with 50 bbls then RIH with bit to 6541'. RD power swivel and pulled out of hole with tubing. SWIFN
Plan to stand back drill collars, run in hole with bit and scraper, RU wireline to correlate tubing then RIH with packer and plug.

4/5/2012 Opened well. 0 psi. Pulled out of hole with drill collars, PU and tripped in hole with bit and casing scraper to fill at 6597', RU wireline unit and established a depth correlation for the tubing, RD and released wireline unit. Pulled out of hole with casing scraper, picked up retrievable bridge plug, RH, 4' sub, HD packer, 1 joint and a cup type SN, then tripped in hole and set the retrievable plug at 6530' then set the packer at 6452'. RU swab equipment and swabbed well as follows:
Swab runs - 7
Water cut - 100%
Average rate -1168 bfpd
Average fluid level - 3250'
Total fluid recovered - 82 bbls
Perf intervals open -6507'-6518' & 6462'-6484'
See 4-5 Swab report for details.
Note: The swab data is not accurate due to the annular fluid dropping while swabbing.
Plan to continue swabbing perforation intervals for rate and cut prior to cementing.

4/6/2012 Opened well, 0 psi tubing, 0 psi casing. RU swab equipment and made 4 runs to confirm communication from the perforations above the packer. Released the packer and reset at 6380', RU swab equipment and swabbed well as follows:
Swab runs - 28
Water cut - 99/100%
Average rate -1032 bfpd
Average fluid level - 3536'

Total fluid recovered - 284 bbls

Perf intervals open -6395' - 6518'

See 4-6 Swab report 2 for details.

Note: Perf intervals 1-4 all had communication, there was not any signs of communication between perf intervals 4 & 5.

RD swab equipment, released packer and plug then reset plug at 6380' and the packer at 6311'. RU pump lines, pressure tested packer to 2000 psi for 15 minutes. RD pump lines and SWIFN.

Plan to swab perf interval 6326'-6334' for rate / set CBP / TIH with tubing.

4/7/2012

Opened well, 0 psi tubing, 0 psi casing. RU swab equipment and swabbed well as follows:

Swab runs - 27

Water cut - 100%

Average rate -922 bfpd

Average fluid level - 2870'

Total fluid recovered - 213 bbls

Perf intervals open - 6326'-6334'

See 4-7 Swab report for details.

Plan to resume operations on Tuesday.

4/8/2012

No activity, waiting on cementing equipment.

4/9/2012

Opened well, 0 psi tubing, 0 psi casing. Released packer and plug, reset plug at 6572', set packer at 6186'.

Run R/A tracer and temperature surveys as follows:

1. Run static temperature survey
2. Pumped R/A tracer surveys with the following entry rates.

Perfs	1 bpm	1.5 bpm
6326'-6334'	7%	32%
6395'-6414'	70%	50%
6430'-6440'	15%	14%
6462'-6484'	8%	4%
6507'-6518'	0%	0%

3. Shut well in and run post shut in temperature survey

4. Run 15 minute post shut in temperature survey

5. Run 30 minute post shut in temperature survey

RD and released wireline unit.

4/10/2012

Opened well, 0 psi tubing, 0 psi casing. RU Halliburton pump equipment and bullheaded 75 bbls of H2zero polymer then displaced with 70 bbls of water (displacement volume was calculated with 25 bbls over displacement to the mid perf depth)

Note: See 4-10 Polymer Squeeze tab for pressure graph

Released packer and plug then pulled out of hole with tubing. RU wireline unit and set composite plug at 6525' RD and released wireline unit. TIH with open-ended tubing and tagged plug at 6525' then set tubing at 6524', RU Halliburton cementing equipment, and pumped cement squeeze as follows:

1. Pumped 5 bbls of fresh water
2. Pumped 75 sks 15.8 ppg 1.15 yield squeezechem cement (15.36 bbls)
3. Pumped 5 bbls fresh water
4. Displaced with 30.4 bbls of 4% KCL water

5. RD pump equipment and pulled out of hole with 16 joints (EOT @ 6027')
6. RU pump equipment
7. Squeezed 2.5 bbls at 1 bpm with a max pressure of 254 psi
8. SD for 5 minutes, pressure fell to 102 psi
9. Squeezed 1 bbl at 1/4 bpm with a max pressure of 705 psi
10. SD for 10 minutes, pressure fell off to 247 psi
11. Squeezed 0.5 bbl at 1/4 bpm with a max pressure of 800 psi.
12. SD for 4 minutes, pressure bled off to 754 psi
13. Squeezed 0.1 bbl at 1/4 bpm with a max pressure of 850 psi.
14. SD for 5 minutes, pressure held at 850 psi without fall off.
15. Bled pressure off with 1 bbl back, RD pump equipment
16. TIH with 8 joints (EOT @ 6278')
17. RU pump lines and reverse circulated cement out at 3.1 bpm with 600 psi.
18. RD pump lines
19. Pulled out of hole with 16 joints
20. RU pump lines and pressured tubing up to 500 psi. SWIFN
21. RD and released cementing equipment

Plan to pull out of hole with tubing / TIH with bit, drill collars and tubing to cement top.

Note: See 4-10 Cement Squeeze tab for pressure graph

4/11/2012

Opened well, 590 psi tubing, 590 psi casing. Bled down pressure and pulled out of hole with tubing. Picked up bit, bit sub, 10 drill 4 3/4" spiral drill collars and crossover to tubing, then tripped in hole with 180 joints of tubing. SWIFN

Plan to drill out cement / round trip bit and scraper.

4/12/2012

Opened well, 0 psi. RU power swivel, tagged cement top at 6294'. Drilled out cement to 6400' WLM, RD power swivel and pulled out of hole laying down drill collars. Picked up and tripped in hole with bit and casing scraper to PBTD @ 6400', RU pump lines and reverse circulated with 54 bbls of completion fluid. Pressure tested casing to 1000 psi for 15 minutes, RD pump lines. RU swab equipment and swabbed well down to 2130', RD swab equipment, pulled out of hole with tubing to 3000'. SWIFN

Plan to finish pulling out of hole with tubing / Perforate / 6353'-6363' / Swab for rate and clean up.

4/13/2012

Opened well, 0 psi tubing, 0 psi casing. Finished pulling out of hole with tbg, RU wireline unit and perforated 6353'-6363' as follows:

Titan Part # EXP 3325-321T

25 gram charges

.41 entry hole

45.16" penetration

4" EXP gun loaded 6 spf on 60° phasing.

RD and released wireline unit. Picked up retrievable bridge plug, RH, 4' sub, HD packer, 1 joint and a cup type SN. Tripped in hole, set plug at 6581' then set the packer at 6310'. RU pump lines and pressure tested packer to 1000 psi, RD pump lines, RU swab equipment and swabbed well as follows:

Swab runs - 4

Water cut - 100%

Average rate - 0 bfpd

Average fluid level - SN

Total fluid recovered - 15 bbls

Perf intervals open - 6353'-6363'

RD swab equipment, RU pump lines, filled tubing then injected into perf set 6353'-6363' at 1/4 bpm with 960 psi. Pumped a total of 5 bbls of CF into the formation reaching a max pressure of 1020 psi. RD pump lines RU swab equipment and swabbed well as follows:

Swab runs - 5

Water cut - 100%

Average rate -0 bfpd

Average fluid level - SN

Total fluid recovered - 41 bbls

Perf intervals open - 6353'-6363'

See 4-13 Swab report for details.

SWIFN

4/14/2012

Rig crew on days off

4/15/2012

Rig crew on days off

4/16/2012

Rig crew travel to location

4/17/2012

Opened well, 0 psi tubing, 0 psi casing. RU swab equipment and swabbed well as follows:

Swab runs - 3

Water cut - 98%

Average rate -0 bfpd

Average fluid level - SN

Total fluid recovered - 27 bbls

Perf intervals open - 6353'-6363'

See 4-17 Swab report for details.

Note: On the third swab run the rig operator stuck the swab mandrel in the seating nipple and was unable to pull out of the rope socket until late afternoon. The failure was due to a worn swab mandrel.

Released packer, pulled out of hole with tubing, removed the swab mandrel and weight bars from seating nipple. Tripped in hole with tubing and reset the packer at 6310' (EOT 6320'). SWIFN

Plan to pump acid on perf interval 6353'-6363' / Swab for rate and clean up.

4/18/2012

Opened well, 0 psi tubing, 0 psi casing. RU Halliburton acid equipment and pumped acid on perf interval 6353' - 6363' as follows:

Opened bypass on packer

Pumped 34.7 bbls CF to establish circulation

Rate

Max pressure

Spotted 11.9 bbls 7 1/2% FE- Acid containing 50 buoyant balls

2 bpm

Closed bypass on packer

Pressured casing to 500 psi

Pumped 2.27 bbls CF

0.6 bpm

1000 psi

Shut down and waited for pressure to bleed off to 450 psi

Pumped 1.47 bbls CF

0.6 bpm

1000 psi

Shut down and waited for pressure to bleed off to 450 psi

Pumped 1.2 bbls CF

0.6 bpm

1000 psi

Shut down and waited for pressure to bleed off to 450 psi

Pumped 1.14 bbls CF

0.6 bpm

1000 psi

Shut down and waited for pressure to bleed off to 450 psi		
Pumped 1.03 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped .97 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped 2.44 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped 5.67 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped 7.63 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped 3.45 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped 5.14 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped 3.58 bbls CF	0.6 bpm	1000 psi
Shut down and recorded ISIP, 5, 10, 15		

General details

Pressure

ISIP	984 psi
5 Min	446 psi
10 Min	243 psi
15 Min	129 psi
Max Treating Pressure	1000 psi
Max Acid Rate	0.6 bpm
Avg Treating Pressure	725 psi
Load to Recover	69 bbls

Note: See (4-18 One sec data, Acid stim) tab for details

Plan to swab perf intervals 6353' - 6363' for rate and clean up.

RD and released acid equipment, RU swab equipment and swabbed well as follows:

Swab runs - 10

Water cut - 98%

Average rate -236 bfpd

Average fluid level - 5560

Total fluid recovered - 87 bbls

Perf intervals open - 6353'-6363'

See 4-18 Swab report for details.

SWIFN

Plan to swab perf intervals 6353' - 6363' for rate and clean up. / Move plug and packer

Opened well, 0 psi tubing, 0 psi casing. RU swab equipment and swabbed well as follows:

Swab runs - 8

Water cut - 98%

Average rate -172 bfpd

4/19/2012

Average fluid level - 5660

Total fluid recovered - 51 bbls

Perf intervals open - 6353'-6363'

See 4-19 Swab report for details.

RD swab equipment, released packer and plug. Reset plug at 6320', RU pump lines and pressure tested plug to 1000 psi, RD pump lines, RU swab equipment and swabbed fluid level down to 2500', pulled out of hole with tubing and packer, RIH with one stand. SWIFN

Plan to perforate 6306'-6310' / swab for rate and clean up.

4/20/2012

Opened well, 0 psi tubing, 0 psi casing. POOH with stand, RU wireline unit and perforated as follows:

Perf interval - 6306'-6310'

Titan Part # EXP 3325-321T

.41 entry hole

25 gram charges

45.16" penetration

4" EXP gun loaded 6 spf on 60° phasing.

RD and released wireline unit. Picked up RH, 4' sub, HD packer, 1 joint and a cup type SN. Tripped in hole, set packer at 6247'. RU pump lines and pressure tested packer to 1000 psi, RD pump lines, RU swab equipment and swabbed well as follows:

Swab runs - 18

Water cut - 100%

Average rate -444 bfpd

Average fluid level - 5150

Total fluid recovered - 138 bbls

Perf intervals open - 6306'-6310'

See 4-20 Swab report for details.

SWIFN

Plan to move plug and packer / Swab 6306'-6363'

4/21/2012

Opened well, 0 psi tubing, 0 psi casing. Released packer and plug, reset plug at 6375' and packer at 6200'.

Pressure tested packer, RU swab equipment and swabbed well as follows.

Swab runs - 12

Water cut - 100%

Average rate -383 bfpd

Average fluid level - 5650

Total fluid recovered - 105 bbls

Perf intervals open - 6306'-6363'

See 4-21 Swab report for details.

RD swab equipment released plug and packer and pulled out of hole. Laid down plug and packer, run in hole with tubing only to ~6500'.

Plan to RDMOSU until further notice.

4/22/2011

ND BOP's, NU wellhead. RDMOSU

Supervisor:

Tony E. Cook

Rig Operator:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIV. OF OIL, GAS & MINING

RECEIVED

JUN 28 2012

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator Wolverine Gas and Oil Company of Utah, LLC

3a. Address
55 Campau NW, Grand Rapids, MI 495033b. Phone No. (include area code)
616-458-1150

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface: 1680' FNL & 2265' FWL, Sec. 17, T23S, R01W, SLB&M
Bottom-Hole: 721' FNL & 2458' FEL, Sec. 17, T23S, R01W, SLB&M5. Lease Serial No.
UTU-735286. If Indian, Allottee or Tribe Name
N/A7. If Unit or CA/Agreement, Name and/or No.
Wolverine Federal Unit8. Well Name and No.
Wolverine Federal 17-6 (WF 8-1)9. API Well No.
43-041-3003710. Field and Pool, or Exploratory Area
Covenant Field11. County or Parish, State
Sevier County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input checked="" type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Wolverine plans to temporarily abandon the Wolverine Federal 17-6 well by August, 2012 for the maximum allowable 3 year time period with a start date of April 22, 2012. See attached procedure for Wolverine's proposed plan.

COPY SENT TO OPERATOR

Date: 8-9-2012

Initials: KS

Accepted by the
Utah Division of
Oil, Gas and MiningDate: 8/8/12
By: [Signature]Federal Approval Of This
Action Is Necessary

* See BLM Conditions of Approval Dated 7/17/2012
(extension valid through 7/17/2013)

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Matthew Rivers

Title Production Engineer

Signature

[Signature]

Date

06/27/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

Wolverine Gas & Oil Company of Utah, LLC
Temporary Abandonment Procedure

Wolverine Federal 17-6
Covenant Field

Purpose: Temporarily plug back and abandon well to preserve casing.

PERTINENT INFORMATION

Location: 1680' FSL, 2265' FWL (SENW)
Section 17, Township 23 South, Range 1 West
Sevier County, Utah

Elevation: 5736' GL, 5753' KB

TD: 6765'

PBTD: 6400' (cement top)

API No.: 43-041-30037

Casing: 13-3/8", 61.0# @ 2000', cemented to surface
9-5/8", 47.0#, HCP-110, LT&C @ 6094', cemented with 230 sks 50:50 Poz
7", 23.0#, HCP-110, LT&C @ 6758', cemented with 480 sks 50:50 Poz

Wellhead: Tubing Head Flange – 7-1/16" 5k w/ 2-7/8" EUE top connection

Tubing: 6246' of 2-7/8", 6.5#, N-80, EUE, 8rd w/ SN, x-over, and ESP equipment

Production Casing Specs: 7", 23.0#, HCP-110, LT&C, 8rd, ID: 6.366" Drift: 6.241"
Collapse: 5650 psi Burst: 8720 psi (80% 6976 psi)

Tubing Specs: 2-7/8", 6.5#, N-80, EUE, 8rd, ID: 2.441" Drift: 2.347"
Collapse: 11,170 psi Burst: 10,570 psi (80% 8456 psi)
Joint: 145,000 lbs (80% 116,000 lbs)

Capacities:	7", 23.0#:	0.03936 Bbls/ft	0.2210 ft ³ /ft
	2-7/8", 6.5#	0.00579 Bbls/ft	0.0325 ft ³ /ft
	7" x 2-7/8" Annulus	0.0313 Bbls/ft	0.1759 ft ³ /ft

BH Temperature: 183 °F @ 6508' MD (6300' TVD)

Current Upper Navajo Formation Completion Interval: 6395' – 6518' (as of 1/10/08)

Current Upper Navajo Perforations:

6306' - 6310' MD (6100' – 6104' TVD), 4' 24 holes (4/20/12)
6326' - 6334' MD (6118' – 6126' TVD), 8', 48 holes (squeezed)
6353' - 6363' MD (6147' - 6157' TVD), 10', 60 holes (4/13/12)
6395' - 6415' MD (6187' – 6207' TVD), 20', 200 holes (squeezed)
6430' - 6444' MD (6222' – 6236' TVD), 14', 136 holes (squeezed)
6462' - 6484' MD (6254' – 6276' TVD), 22', 180 holes (squeezed)
6507' - 6518' MD (6299' – 6310' TVD), 11' 90 holes (squeezed)

Perforation Depths are referenced to Halliburton SDL-DSN-GR dated 05/27/05.

PROCEDURE

1. Remove fence, cover ground, and prepare location for workover. Spot two 500 Bbl tanks and fill with completion fluid (CF) consisting of filtered produced water containing, 5.25 gallons (250 ppm) XC102W biocide, and 1.25 gallons (60 ppm) OSW5200 Oxygen Scavenger.
2. MIRUSU, NU BOP and ND wellhead.
3. PU 2-7/8" tubing as needed to round trip a 6-1/8" bit and casing scraper to PBTD. Tag PBTD and spot 10 Bbls of 9+ ppg salt brine containing recommended biocide and corrosion inhibitor to fill casing above perforations. POOH with bit and casing scraper.
4. RU wireline unit with lubricator. Set a 7" (23#) CIBP at 6280' and dump bail 2 sacks of cement on top of the CIBP. RD wireline.
5. RIH with 2-7/8" tubing and tag CIBP and cement at ~6270'. Pull up one joint of tubing and circulate well with 250 bbls of completion fluid. POOH and lay down tubing.
6. ND BOP, and NU wellhead. Shut in well.
7. RDMOSU



Covenant Field
Federal 17-6
API# 43-041-30037

SE/NW Sec 17 T23S R1W
Sevier County, Utah

3/28/2012 Roustabouts removed well fencing and prepped area for workover rig. Hauled in frac tanks and started plumbing in flow back and pump lines.

3/29/2012 Hauled in rig pump, cat walk and base beam. Started filling frac tanks with water and KCL, finished plumbing in flow back and pump lines.
Plan to MIRUSU on Monday.

3/30/2012 No activity

3/31/2012 No activity

4/1/2012 No activity

4/2/2012 MIRUSU, ND wellhead, NU BOP's

4/3/2012 Finished rigging up service unit, opened well, picked up and run in hole with bit, ten 4 3/4" drill collars and 160 Joints of 2 7/8" N-80 tubing. SWIFN
Note: Partial downtime due rig repairs
Plan to finish tripping in hole with tubing, drill out CICR, POOH.

4/4/2012 Opened well, finished picking up tubing off racks, tagged cement top at 6294'. RU power swivel and drilled out cement and CICR, circulated well clean with 50 bbls then RIH with bit to 6541'. RD power swivel and pulled out of hole with tubing. SWIFN
Plan to stand back drill collars, run in hole with bit and scraper, RU wireline to correlate tubing then RIH with packer and plug.

4/5/2012 Opened well. 0 psi. Pulled out of hole with drill collars, PU and tripped in hole with bit and casing scraper to fill at 6597', RU wireline unit and established a depth correlation for the tubing, RD and released wireline unit. Pulled out of hole with casing scraper, picked up retrievable bridge plug, RH, 4' sub, HD packer, 1 joint and a cup type SN, then tripped in hole and set the retrievable plug at 6530' then set the packer at 6452'. RU swab equipment and swabbed well as follows:
Swab runs - 7
Water cut - 100%
Average rate -1168 bfpd
Average fluid level - 3250'
Total fluid recovered - 82 bbls
Perf intervals open -6507'-6518' & 6462'-6484'
See 4-5 Swab report for details.
Note: The swab data is not accurate due to the annular fluid dropping while swabbing.
Plan to continue swabbing perforation intervals for rate and cut prior to cementing.

4/6/2012 Opened well, 0 psi tubing, 0 psi casing. RU swab equipment and made 4 runs to confirm communication from the perforations above the packer. Released the packer and reset at 6380', RU swab equipment and swabbed well as follows:
Swab runs - 28
Water cut - 99/100%
Average rate -1032 bfpd
Average fluid level - 3536'

Total fluid recovered - 284 bbls

Perf intervals open -6395' - 6518'

See 4-6 Swab report 2 for details.

Note: Perf intervals 1-4 all had communication, there was not any signs of communication between perf intervals 4 & 5.

RD swab equipment, released packer and plug then reset plug at 6380' and the packer at 6311'. RU pump lines, pressure tested packer to 2000 psi for 15 minutes. RD pump lines and SWIFN.

Plan to swab perf interval 6326'-6334' for rate / set CBP / TIH with tubing.

4/7/2012

Opened well, 0 psi tubing, 0 psi casing. RU swab equipment and swabbed well as follows:

Swab runs - 27

Water cut - 100%

Average rate -922 bfpd

Average fluid level - 2870'

Total fluid recovered - 213 bbls

Perf intervals open - 6326'-6334'

See 4-7 Swab report for details.

Plan to resume operations on Tuesday.

4/8/2012

No activity, waiting on cementing equipment.

4/9/2012

Opened well, 0 psi tubing, 0 psi casing. Released packer and plug, reset plug at 6572', set packer at 6186'.

Run R/A tracer and temperature surveys as follows:

1. Run static temperature survey
2. Pumped R/A tracer surveys with the following entry rates.

Perfs	1 bpm	1.5 bpm
6326'-6334'	7%	32%
6395'-6414'	70%	50%
6430'-6440'	15%	14%
6462'-6484'	8%	4%
6507'-6518'	0%	0%

3. Shut well in and run post shut in temperature survey

4. Run 15 minute post shut in temperature survey

5. Run 30 minute post shut in temperature survey

RD and released wireline unit.

4/10/2012

Opened well, 0 psi tubing, 0 psi casing. RU Halliburton pump equipment and bullheaded 75 bbls of H2zero polymer then displaced with 70 bbls of water (displacement volume was calculated with 25 bbls over displacement to the mid perf depth)

Note: See 4-10 Polymer Squeeze tab for pressure graph

Released packer and plug then pulled out of hole with tubing. RU wireline unit and set composite plug at 6525' RD and released wireline unit. TIH with open-ended tubing and tagged plug at 6525' then set tubing at 6524', RU Halliburton cementing equipment, and pumped cement squeeze as follows:

1. Pumped 5 bbls of fresh water
2. Pumped 75 sks 15.8 ppg 1.15 yield squeezechem cement (15.36 bbls)
3. Pumped 5 bbls fresh water
4. Displaced with 30.4 bbls of 4% KCL water

5. RD pump equipment and pulled out of hole with 16 joints (EOT @ 6027')
6. RU pump equipment
7. Squeezed 2.5 bbls at 1 bpm with a max pressure of 254 psi
8. SD for 5 minutes, pressure fell to 102 psi
9. Squeezed 1 bbl at 1/4 bpm with a max pressure of 705 psi
10. SD for 10 minutes, pressure fell off to 247 psi
11. Squeezed 0.5 bbl at 1/4 bpm with a max pressure of 800 psi.
12. SD for 4 minutes, pressure bled off to 754 psi
13. Squeezed 0.1 bbl at 1/4 bpm with a max pressure of 850 psi.
14. SD for 5 minutes, pressure held at 850 psi without fall off.
15. Bled pressure off with 1 bbl back, RD pump equipment
16. TIH with 8 joints (EOT @ 6278')
17. RU pump lines and reverse circulated cement out at 3.1 bpm with 600 psi.
18. RD pump lines
19. Pulled out of hole with 16 joints
20. RU pump lines and pressured tubing up to 500 psi. SWIFN
21. RD and released cementing equipment

Plan to pull out of hole with tubing / TIH with bit, drill collars and tubing to cement top.

Note: See 4-10 Cement Squeeze tab for pressure graph

4/11/2012

Opened well, 590 psi tubing, 590 psi casing. Bled down pressure and pulled out of hole with tubing. Picked up bit, bit sub, 10 drill 4 3/4" spiral drill collars and crossover to tubing, then tripped in hole with 180 joints of tubing. SWIFN

Plan to drill out cement / round trip bit and scraper.

4/12/2012

Opened well, 0 psi. RU power swivel, tagged cement top at 6294'. Drilled out cement to 6400' WLM, RD power swivel and pulled out of hole laying down drill collars. Picked up and tripped in hole with bit and casing scraper to PBTD @ 6400', RU pump lines and reverse circulated with 54 bbls of completion fluid. Pressure tested casing to 1000 psi for 15 minutes, RD pump lines. RU swab equipment and swabbed well down to 2130', RD swab equipment, pulled out of hole with tubing to 3000'. SWIFN

Plan to finish pulling out of hole with tubing / Perforate / 6353'-6363' / Swab for rate and clean up.

4/13/2012

Opened well, 0 psi tubing, 0 psi casing. Finished pulling out of hole with tbg, RU wireline unit and perforated 6353'-6363' as follows:

Titan Part # EXP 3325-321T

25 gram charges

.41 entry hole

45.16" penetration

4" EXP gun loaded 6 spf on 60° phasing.

RD and released wireline unit. Picked up retrievable bridge plug, RH, 4' sub, HD packer, 1 joint and a cup type SN. Tripped in hole, set plug at 6581' then set the packer at 6310'. RU pump lines and pressure tested packer to 1000 psi, RD pump lines, RU swab equipment and swabbed well as follows:

Swab runs - 4

Water cut - 100%

Average rate -0 bfpd

Average fluid level - SN

Total fluid recovered - 15 bbls

Perf intervals open - 6353'-6363'

RD swab equipment, RU pump lines, filled tubing then injected into perf set 6353'-6363' at 1/4 bpm with 960 psi. Pumped a total of 5 bbls of CF into the formation reaching a max pressure of 1020 psi. RD pump lines RU swab equipment and swabbed well as follows:

Swab runs - 5

Water cut - 100%

Average rate -0 bfpd

Average fluid level - SN

Total fluid recovered - 41 bbls

Perf intervals open - 6353'-6363'

See 4-13 Swab report for details.

SWIFN

4/14/2012

Rig crew on days off

4/15/2012

Rig crew on days off

4/16/2012

Rig crew travel to location

4/17/2012

Opened well, 0 psi tubing, 0 psi casing. RU swab equipment and swabbed well as follows:

Swab runs - 3

Water cut - 98%

Average rate -0 bfpd

Average fluid level - SN

Total fluid recovered - 27 bbls

Perf intervals open - 6353'-6363'

See 4-17 Swab report for details.

Note: On the third swab run the rig operator stuck the swab mandrel in the seating nipple and was unable to pull out of the rope socket until late afternoon. The failure was due to a worn swab mandrel.

Released packer, pulled out of hole with tubing, removed the swab mandrel and weight bars from seating nipple. Tripped in hole with tubing and reset the packer at 6310' (EOT 6320'). SWIFN

Plan to pump acid on perf interval 6353'-6363' / Swab for rate and clean up.

4/18/2012

Opened well, 0 psi tubing, 0 psi casing. RU Halliburton acid equipment and pumped acid on perf interval 6353' - 6363' as follows:

Opened bypass on packer

Pumped 34.7 bbls CF to establish circulation

Rate

Max pressure

Spotted 11.9 bbls 7 1/2% FE- Acid containing 50 buoyant balls

2 bpm

Closed bypass on packer

Pressured casing to 500 psi

Pumped 2.27 bbls CF

0.6 bpm

1000 psi

Shut down and waited for pressure to bleed off to 450 psi

Pumped 1.47 bbls CF

0.6 bpm

1000 psi

Shut down and waited for pressure to bleed off to 450 psi

Pumped 1.2 bbls CF

0.6 bpm

1000 psi

Shut down and waited for pressure to bleed off to 450 psi

Pumped 1.14 bbls CF

0.6 bpm

1000 psi

Shut down and waited for pressure to bleed off to 450 psi		
Pumped 1.03 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped .97 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped 2.44 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped 5.67 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped 7.63 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped 3.45 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped 5.14 bbls CF	0.6 bpm	1000 psi
Shut down and waited for pressure to bleed off to 450 psi		
Pumped 3.58 bbls CF	0.6 bpm	1000 psi
Shut down and recorded ISIP, 5, 10, 15		

General details

Pressure

ISIP	984 psi
5 Min	446 psi
10 Min	243 psi
15 Min	129 psi
Max Treating Pressure	1000 psi
Max Acid Rate	0.6 bpm
Avg Treating Pressure	725 psi
Load to Recover	69 bbls

Note: See (4-18 One sec data, Acid stim) tab for details

Plan to swab perf intervals 6353' - 6363' for rate and clean up.

RD and released acid equipment, RU swab equipment and swabbed well as follows:

Swab runs - 10

Water cut - 98%

Average rate -236 bfpd

Average fluid level - 5560

Total fluid recovered - 87 bbls

Perf intervals open - 6353'-6363'

See 4-18 Swab report for details.

SWIFN

Plan to swab perf intervals 6353' - 6363' for rate and clean up. / Move plug and packer

Opened well, 0 psi tubing, 0 psi casing. RU swab equipment and swabbed well as follows:

Swab runs - 8

Water cut - 98%

Average rate -172 bfpd

4/19/2012

Average fluid level - 5660

Total fluid recovered - 51 bbls

Perf intervals open - 6353'-6363'

See 4-19 Swab report for details.

RD swab equipment, released packer and plug. Reset plug at 6320', RU pump lines and pressure tested plug to 1000 psi, RD pump lines, RU swab equipment and swabbed fluid level down to 2500', pulled out of hole with tubing and packer, RIH with one stand. SWIFN

Plan to perforate 6306'-6310' / swab for rate and clean up.

4/20/2012

Opened well, 0 psi tubing, 0 psi casing. POOH with stand, RU wireline unit and perforated as follows:

Perf interval - 6306'-6310'

Titan Part # EXP 3325-321T

.41 entry hole

25 gram charges

45.16" penetration

4" EXP gun loaded 6 spf on 60° phasing.

RD and released wireline unit. Picked up RH, 4' sub, HD packer, 1 joint and a cup type SN. Tripped in hole, set packer at 6247'. RU pump lines and pressure tested packer to 1000 psi, RD pump lines, RU swab equipment and swabbed well as follows:

Swab runs - 18

Water cut - 100%

Average rate -444 bfpd

Average fluid level - 5150

Total fluid recovered - 138 bbls

Perf intervals open - 6306'-6310'

See 4-20 Swab report for details.

SWIFN

Plan to move plug and packer / Swab 6306'-6363'

4/21/2012

Opened well, 0 psi tubing, 0 psi casing. Released packer and plug, reset plug at 6375' and packer at 6200'.

Pressure tested packer, RU swab equipment and swabbed well as follows.

Swab runs - 12

Water cut - 100%

Average rate -383 bfpd

Average fluid level - 5650

Total fluid recovered - 105 bbls

Perf intervals open - 6306'-6363'

See 4-21 Swab report for details.

RD swab equipment released plug and packer and pulled out of hole. Laid down plug and packer, run in hole with tubing only to ~6500'.

Plan to RDMOSU until further notice.

4/22/2011

ND BOP's, NU wellhead. RDMOSU

Supervisor:

Tony E. Cook

Rig Operator:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
Wolverine Gas and Oil Company of Utah, LLC3a. Address
55 Campau NW, Grand Rapids, MI 495033b. Phone No. (include area code)
616-458-1150

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface: 1680' FNL & 2265' FWL, Sec. 17, T23S, R01W, SLB&M
Bottom-Hole: 721' FNL & 2458' FEL, Sec. 17, T23S, R01W, SLB&M5. Lease Serial No.
UTU-735286. If Indian, Allottee or Tribe Name
N/A7. If Unit or CA/Agreement, Name and/or No.
Wolverine Federal Unit8. Well Name and No.
Wolverine Federal 17-6 (WF 8-1)9. API Well No.
43-041-3003710. Field and Pool, or Exploratory Area
Covenant Field11. County or Parish, State
Sevier County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input checked="" type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Wolverine Gas & Oil Company of Utah, LLC completed a temporary abandonment on the Wolverine Federal 17-6 well July 10, 2012. 10 bbls of 9.2# salt brine with CRW-132 corrosion inhibitor were spotted at PBTD of 6400'. A CIBP was set at 6280' and 2 sacks of cement were dump bailed on top of the plug. The well was then circulated with 250 bbls of fresh water with CRW-132 corrosion inhibitor. The wellhead was nipped up and shut-in.

See activity report and WBD for additional details.

RECEIVED**RECEIVED**

JUL 23 2012

AUG 22 2012

Richfield BLM Field Office

DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Matthew Rivers

Title Production Engineer

Signature

Date

07/17/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

Accepted For Record Purposes



Covenant Field
Federal 17-6
API# 43-041-30037

SE/NW Sec 17 T23S R1W
Sevier County, Utah

7/9/2012 MIRUSU, ND wellhead, NU BOP. Pulled out of hole with tubing, PU and tripped in hole with casing scraper to PBTD at 6400'. RU pump lines and spotted 10 bbls of 9.2# salt brine containing Baker Petrolite CRW -132 corrosion inhibitor, RD pump lines and pulled out of hole with tubing. RU wireline unit, set CIBP at 6280' then dumped two sacks of cement on top. SWIFN

Plan to tag cement top / circulate corrosion inhibitor / lay down tubing.

7/10/2012 Opened well, 0 psi. Tripped in hole with tubing to cement top at 6270', picked up 4' and circulated well with 250 bbls of fresh water containing Baker Petrolite CRW-132 corrosion inhibitor. Pulled out of hole laying down tubing. ND BOP, NU wellhead. RDMOSU

Final Report

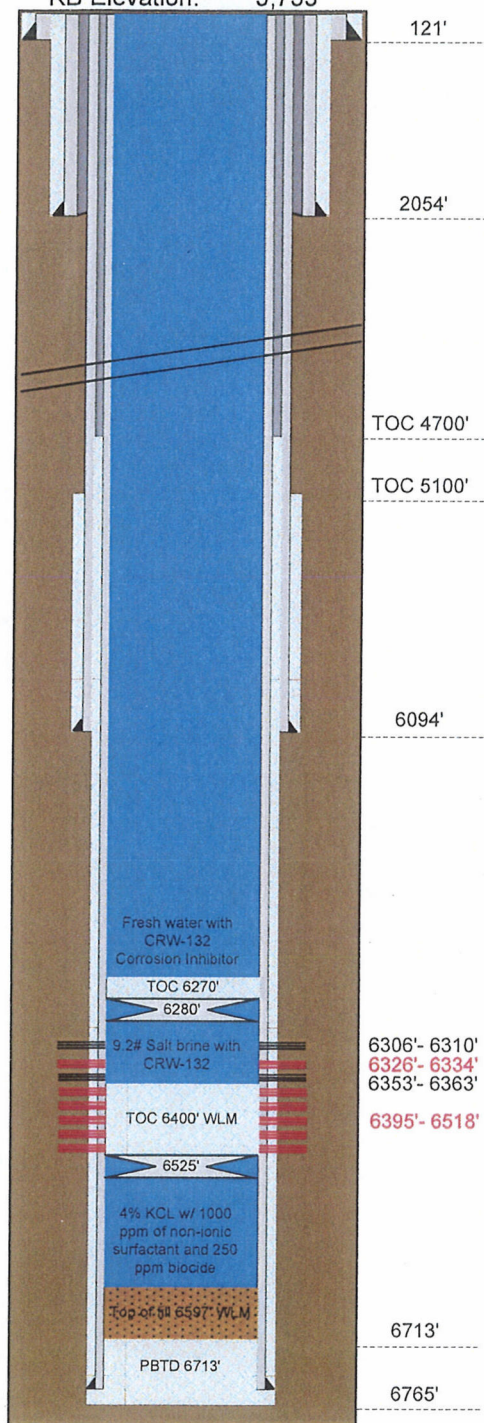
Supervisor: Tony E. Cook

Rig Operator:



Wolverine Federal 17-6 (WF 8-1)
API # 43-041-30037
Covenant Field
Section 17, T23S, R1W
Sevier County, Utah

Ground Elevation: 5,736'
 KB Elevation: 5,753'



(Not to Scale)

Deviated Well

Surface: 1680' FNL 2265' FWL, SE NW, 17-23S-1W
 Top of Pay (6303' MD): 704' FNL, 2477' FEL, NW NE, 17-23S-1W
 Total Depth (6765' MD): 721' FNL, 2458' FEL, NW NE, 17-23S-1W

Conductor Casing (06/05)

Size: 20", 0.25" wall
 Depth Landed: 121'
 Cement Data: Cemented to surface with 640 sks Class "G"

Surface Casing (4/22/05)

Size/Wt/Grade: 13 3/8", 61#, J-55, STC, 8rd
 Depth Landed: 2054' MD
 Cement Data: 595 sks Hifill (11.0 ppg, 3.96 cf/sk), 475 sks Prem. Plus (15.6 ppg, 1.18 cf/sk), Top job w/ 30 bbls Class "G"

Intermediate Casing (5/24/05)

Size/Wt/Grade: 9-5/8", 47#, HC-P110, LTC, 8rd
 Depth Landed: 6094' MD
 Cement Data: 230 sks 50:50 Poz (13.0? ppg, 1.71? cf/sk)

Production Casing (5/29/05)

Size/Wt/Grade: 7", 23#, HC-P110, LTC, 8rd
 Properties: 8720 psi burst, 6.241" drift, 6.366" ID, 0.0393 Bbl/ft Capacity
 Depth Landed: 6758' MD
 Cement Data: 255 sks 50:50 Poz (14.35? ppg, 1.27? cf/sk)

Navajo Perforations

6306' - 6310' MD (6100' - 6104' TVD), 4', 24 holes (4/20/12)
 6326' - 6334' MD (6120' - 6128' TVD), 8', 48 holes (squeezed)
 6353' - 6363' MD (6147' - 6157' TVD), 10', 60 holes (4/13/12)
 6395' - 6415' MD (6189' - 6209' TVD), 20', 200 holes (squeezed)
 6430' - 6444' MD (6224' - 6238' TVD), 14', 136 holes (squeezed)
 6462' - 6484' MD (6256' - 6278' TVD), 22', 180 holes (squeezed)
 6507' - 6518' MD (6301' - 6312' TVD), 11', 90 holes (squeezed)

Mid-Perf = 6335' MD (6129' TVD), 14' M (14' TV), 84 holes

Tubing (7/10/12)

None

PBTD

(8/7/05) Tubing tagged cement top @ 6713' MD
 (10/16/06) Tagged fill @ 6675' MD
 (11/14/07) Tagged fill @ 6666' MD
 (10/11/10) Tagged fill @ 6597' WLM
 (4/5/12) Tagged fill @ 6597' WLM



Wolverine Federal 17-6 (WF 8-1)
API # 43-041-30037
Covenant Field
Section 17, T23S, R1W
Sevier County, Utah

Tubing Detail (7/10/12)

No tubing in well

Directional Data:

<u>MD</u>	<u>TVD</u>	<u>Incl.</u>	<u>MD</u>	<u>TVD</u>	<u>Incl.</u>
500	498	11.2	3000	2834	16.3
1000	980	16.7	3500	3320	10.4
1500	1459	16.5	4000	3814	9.7
1750	1697	18.5	4500	4305	9.7
2000	1930	24.5	5000	4799	7.8
2250	2155	27.6	5500	5296	5.1
2500	2374	28.6	6000	5794	2.3
2750	2599	22.4	6500	6294	3.2

Wellhead Information

- Tubing head flange is 7-1/16", 5M with a 2-7/8" EUE 8rd top connection.

Stimulation/Treatments

8/11/05:

6395' - 6518' w/ 6300 gal 7.5% HCl. Attempted to isolate and treat individual zones. Communicated between 6512' - 6518' MD, 6472' - 6484' MD, and 6430' - 6443' MD. BDP = 1850 - 2830 psi, ISDP = 1200 psi

10/23/06:

6395' - 6518' w/ 2100 gal 15% HCl with 30 gpt Morflo, 1 gpt lowsulf-300M, 1 gpt AS-9 anti-sludge, 6 gpt HAI-404 inhibitor, 10gpt Fe-7A & 50gpt Fe-2 iron sequestering agents. Communicated between all zones. Pulse washed all perforations using coiled tubing. FTP = 885 psi @ 1 BPM.

11/19/07:

Circulation cement squeeze with 25 sks of Class "G" cement and CICR at 6460'.

1/9/08:

6395' - 6518' w/ 1587 gal 7.5% FE, 2564 gal 5% Clay-Safe H, and 3489 gal 11.5%-1.5% Sandstone Completion Acid with diverter and three stages. FTP = 1356 psi @ 2.1 BPM.

4/10/12:

6326'-6518' w 75 bbls of Halliburton H2Zero polymer at 1 BPM and 1000 psi. Over displaced w/ 25 bbls of 4% KCL.

4/18/12:

6353' - 6363' w/ 500 gal 7.5% FE HCL and 50 buoyant ball sealers, MTR = 0.6 BPM
MTP = 1000 psi ISIP = 984 psi

Notes

Surface Location: Latitude = 38° 48' 19.4600", Longitude = -111° 56' 02.2729"

(7/21/05): Cement top at 4702' on CBL-CCL-GR

(9/5/06): Available Logs: DLL/MSFL, SDL/DSN, EMI, CBL, Halliburton Directional Log

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9																														
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-73528																														
1. TYPE OF WELL Oil Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME: WOLVERINE																														
2. NAME OF OPERATOR: WOLVERINE GAS & OIL COMPANY OF UTAH, LLC		8. WELL NAME and NUMBER: WOLVERINE FED 17-6 (WF 8-1)																														
3. ADDRESS OF OPERATOR: One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503		9. API NUMBER: 43041300370000																														
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1680 FNL 2265 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 17 Township: 23.0S Range: 01.0W Meridian: S		9. FIELD and POOL or WILDCAT: COVENANT																														
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA																																
TYPE OF SUBMISSION <input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 10/14/2015 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	TYPE OF ACTION <table style="width: 100%;"> <tr> <td><input type="checkbox"/> ACIDIZE</td> <td><input type="checkbox"/> ALTER CASING</td> <td><input type="checkbox"/> CASING REPAIR</td> </tr> <tr> <td><input type="checkbox"/> CHANGE TO PREVIOUS PLANS</td> <td><input type="checkbox"/> CHANGE TUBING</td> <td><input type="checkbox"/> CHANGE WELL NAME</td> </tr> <tr> <td><input type="checkbox"/> CHANGE WELL STATUS</td> <td><input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS</td> <td><input type="checkbox"/> CONVERT WELL TYPE</td> </tr> <tr> <td><input type="checkbox"/> DEEPEN</td> <td><input type="checkbox"/> FRACTURE TREAT</td> <td><input type="checkbox"/> NEW CONSTRUCTION</td> </tr> <tr> <td><input type="checkbox"/> OPERATOR CHANGE</td> <td><input type="checkbox"/> PLUG AND ABANDON</td> <td><input type="checkbox"/> PLUG BACK</td> </tr> <tr> <td><input type="checkbox"/> PRODUCTION START OR RESUME</td> <td><input type="checkbox"/> RECLAMATION OF WELL SITE</td> <td><input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION</td> </tr> <tr> <td><input type="checkbox"/> REPERFORATE CURRENT FORMATION</td> <td><input type="checkbox"/> SIDETRACK TO REPAIR WELL</td> <td><input type="checkbox"/> TEMPORARY ABANDON</td> </tr> <tr> <td><input type="checkbox"/> TUBING REPAIR</td> <td><input type="checkbox"/> VENT OR FLARE</td> <td><input type="checkbox"/> WATER DISPOSAL</td> </tr> <tr> <td><input type="checkbox"/> WATER SHUTOFF</td> <td><input checked="" type="checkbox"/> SI TA STATUS EXTENSION</td> <td><input type="checkbox"/> APD EXTENSION</td> </tr> <tr> <td><input type="checkbox"/> WILDCAT WELL DETERMINATION</td> <td><input type="checkbox"/> OTHER</td> <td>OTHER: <input style="width: 100px;" type="text"/></td> </tr> </table>		<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL	<input type="checkbox"/> WATER SHUTOFF	<input checked="" type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Wolverine Gas and Oil Company seeks to extend the Temporary Abandonment status of Wolverine Federal #17-6. Although the well is not capable of production at present (CIBP and cement plug top is at 6270'), Wolverine Gas and Oil is actively investigating E.O.R. options for the Covenant Field. Results of that study may find that W.F.17-6 can still contribute significantly to the field's ultimate oil recovery.																																
REQUEST DENIED Utah Division of Oil, Gas and Mining Date: October 19, 2015 By: <u><i>Derek Quist</i></u>																																
Please Review Attached Conditions of Approval																																
NAME (PLEASE PRINT) Ron Meredith		PHONE NUMBER 616 929-1932																														
SIGNATURE N/A		TITLE Sr. Production Engineer																														
DATE 10/14/2015																																



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43041300370000

Did not meet the requirements of R649-3-36 for extension.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007**SUNDRY NOTICES AND REPORTS ON WELLS****Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.****SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. UTU-73528
2. Name of Operator Wolverine Gas and Oil Company of Utah, LLC		6. If Indian, Allottee or Tribe Name NA
3a. Address 55 Campau NW, Grand Rapids, Michigan 49503-2616	3b. Phone No. (include area code) 616-458-1150	7. If Unit or CA/Agreement, Name and/or No. Wolverine Federal Unit
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SHL - 1680' FNL, 2265' FWL, Section 17, T23S, R1W, SLB&M BHL - 7217' FNL, 22458' FEL, Section 17, T23S, R1W, SLB&M		8. Well Name and No. Wolverine Federal 17-6 (WF 8-1)
		9. API Well No. 43-041-30037
		10. Field and Pool, or Exploratory Area Covenant Field Navajo
		11. County or Parish, State Sevier County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
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13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Wolverine Gas and Oil Company seeks to extend the Temporary Abandonment status of Wolverine Federal #17-6. Although this well is not capable of production at present (see the attached current WBD for additional details), Wolverine Gas and Oil is actively investigating EOR options at the Covenant Field. Results of that study may find that WF 17-6 is still capable of significant contribution to the field's ultimate oil recovery.

RECEIVED


OCT 01 2015

RECEIVED


OCT 13 2015

DIV. OF OIL, GAS & MINING

Richfield BLM Field Office

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Ron Meredith		Title Sr. Production Engineer
Signature 	Date 09/25/2015	

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by 	Title SNRS	Date 10/6/2015
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office Richfield F.O.	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.		

(Instructions on page 2)

SUNDRY # 16SLA00045**Conditions of Approval Attached**

Conditions of Approval

Wolverine Gas and Oil Company of Utah, LLC Sundry Dated 9/25/2015

Well: Wolverine Federal 17-6 (WF 8-1)
Location: Section 17, T23S, R1W
Lease: UTU-73528
County: Sevier

The following conditions of approval shall apply to this sundry:

Wolverine Federal #17-6 (WF 8-1) TA approval:

1. The temporarily abandoned status is granted for a one time, one-year period until October 6, 2016.
2. On or before October 6, 2016, operator shall take action to either resume operations, submit justification for an additional one-year extension, or submit a sundry notice to plug and abandon the well.

If you have any questions regarding the conditions supporting this approval, please call Stan Andersen in the Richfield Field Office at 435-896-1532 or Leslie Peterson in the Price Field Office at 435-636-3661.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9																														
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-73528																														
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2. NAME OF OPERATOR: WOLVERINE GAS & OIL COMPANY OF UTAH, LLC		8. WELL NAME and NUMBER: WOLVERINE FED 17-6 (WF 8-1)																														
3. ADDRESS OF OPERATOR: One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503		9. API NUMBER: 43041300370000																														
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1680 FNL 2265 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 17 Township: 23.0S Range: 01.0W Meridian: S		9. FIELD and POOL or WILDCAT: COVENANT																														
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		COUNTY: SEVIER																														
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TYPE OF SUBMISSION <input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 10/29/2015 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	TYPE OF ACTION <table style="width: 100%;"> <tr> <td><input type="checkbox"/> ACIDIZE</td> <td><input type="checkbox"/> ALTER CASING</td> <td><input type="checkbox"/> CASING REPAIR</td> </tr> <tr> <td><input type="checkbox"/> CHANGE TO PREVIOUS PLANS</td> <td><input type="checkbox"/> CHANGE TUBING</td> <td><input type="checkbox"/> CHANGE WELL NAME</td> </tr> <tr> <td><input type="checkbox"/> CHANGE WELL STATUS</td> <td><input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS</td> <td><input type="checkbox"/> CONVERT WELL TYPE</td> </tr> <tr> <td><input type="checkbox"/> DEEPEN</td> <td><input type="checkbox"/> FRACTURE TREAT</td> <td><input type="checkbox"/> NEW CONSTRUCTION</td> </tr> <tr> <td><input type="checkbox"/> OPERATOR CHANGE</td> <td><input type="checkbox"/> PLUG AND ABANDON</td> <td><input type="checkbox"/> PLUG BACK</td> </tr> <tr> <td><input type="checkbox"/> PRODUCTION START OR RESUME</td> <td><input type="checkbox"/> RECLAMATION OF WELL SITE</td> <td><input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION</td> </tr> <tr> <td><input type="checkbox"/> REPERFORATE CURRENT FORMATION</td> <td><input type="checkbox"/> SIDETRACK TO REPAIR WELL</td> <td><input type="checkbox"/> TEMPORARY ABANDON</td> </tr> <tr> <td><input type="checkbox"/> TUBING REPAIR</td> <td><input type="checkbox"/> VENT OR FLARE</td> <td><input type="checkbox"/> WATER DISPOSAL</td> </tr> <tr> <td><input type="checkbox"/> WATER SHUTOFF</td> <td><input checked="" type="checkbox"/> SI TA STATUS EXTENSION</td> <td><input type="checkbox"/> APD EXTENSION</td> </tr> <tr> <td><input type="checkbox"/> WILDCAT WELL DETERMINATION</td> <td><input type="checkbox"/> OTHER</td> <td>OTHER: <input style="width: 100px;" type="text"/></td> </tr> </table>		<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL	<input type="checkbox"/> WATER SHUTOFF	<input checked="" type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Wolverine Gas and Oil Company seeks to extend the T.A. status of Wolverine Federal 17-6. The well is currently not capable of producing, as tubing and pump equipment were removed and a CIBP/cement plug was set above perforations (July, 2012 at 6270'). Wolverine is actively investigating EOR opportunities at Covenant, including infill drilling and CO2-flooding options. Study results may conclude that WF 17-6 can still add significant value to the field, thru added oil recovery. Furthermore, WF 17-6 poses minimal safety/environmental risks in its current state. The well was drilled just 11 years ago and casing integrity was verified with a 1000 psi MIT, witnessed by UDGOM, on 10/28/15. Finally, it is located on a pad with 4 other active wells and is consequently checked, at least daily, by Wolverine field personnel.																																
Accepted by the Utah Division of Oil, Gas and Mining Date: November 19, 2015 By: <u><i>Derek Quist</i></u>																																
NAME (PLEASE PRINT) Ron Meredith	PHONE NUMBER 616 929-1932	TITLE Sr. Production Engineer																														
SIGNATURE N/A		DATE 10/29/2015																														

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2		5. Lease Serial No. UTU73528
		6. If Indian, Allottee or Tribe Name
		7. If Unit or CA/Agreement, Name and/or No. UTU80800A
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. WOLVERINE FEDERAL 17-6 (WF 8-1)
2. Name of Operator WOLVERINE GAS & OIL CORP. Contact: RON W MEREDITH E-Mail: rmeredith@wolvgas.com		9. API Well No. 43-041-30037
3a. Address ONE RIVERFRONT PLAZA 55 CAMPAU NW GRAND RAPIDS, MI 49503	3b. Phone No. (include area code) Ph: 616-929-1932 Fx: 616-458-0869	10. Field and Pool or Exploratory Area COVENANT FIELD / NAVAJO
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 17 T23S R1W Mer SLB SENW 1680FNL 2265FWL		11. County or Parish, State SEVIER COUNTY COUNTY, UT

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input checked="" type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Wolverine Gas and Oil Co. of Utah, LLC (a subsidiary of Wolverine Gas and Oil Corp.) seeks to renew the Temporarily Abandoned status of Wolverine Federal 17-6. The subject well is presently not capable of production as pump equipment was removed from the well and a CIBP/cement plug was set above all perforations (at 6270') in July of 2012.

Wolverine continues to monitor production and bottom-hole pressure across the field while considering both infill drilling and CO2-flooding options at Covenant. If an economically viable CO2 source can be identified, 17-6 could contribute significantly towards enhancing the field's ultimate oil recovery.

WF 17-6 poses minimal safety/environmental risks in its current state. The well was drilled just 12 years ago and had its most recent (UDOGM-witnessed, 1000 psi) MIT on 10/28/15. Furthermore, the well is located on a well pad with 4 other, active Covenant Field wells and is monitored continuously by Wolverine field personnel.

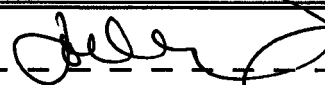
RECEIVED

DEC 16 2016

DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct. Electronic Submission #352526 verified by the BLM Well Information System For WOLVERINE GAS & OIL CORP., sent to the Salt Lake	
Name (Printed/Typed) RON W MEREDITH	Title SR. PRODUCTION ENGINEER
Signature (Electronic Submission)	Date 09/26/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By 	Title Field Manager	Date 12/12/16
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office Richfield Field Office		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Conditions of Approval Attached

Well and Notice Remarks

Doc. Number	TA	Doc. Type	Case IID	Type	Name
17RH0002SE			UTU80800A	318230	WOLVERINE NVJO A
API	Well Name	Number	Operator		
430413003701S1	WOLVERINE FEDERAL	17-6(8-1)	WOLVERINE GAS & OIL CO OF UT		
Doc. Number	Date	Author	Subject	Category	
17RH0002SE	12/06/2016	ROBIN HANSEN	TA	APPROVAL	
17RH0002SE	12/05/2016	ROBIN HANSEN	TA	APPROVAL	

Category GENERAL

Date 12/06/2016

The TA request is granted as proposed with the following conditions:

-
- 1.The TA status shall expire on December 6, 2017.
 - 2.Prior to drilling out the CIPB (placing the well back to production or conversion to injection), an MIT test will be performed on the production casing.

If you have any other questions concerning this matter, please contact Robin L Hansen of this office at (801)-539-4072.

12-Dec-2016 09:25

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-73528
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME: WOLVERINE
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: WOLVERINE FED 17-6 (WF 8-1)
2. NAME OF OPERATOR: WOLVERINE GAS & OIL COMPANY OF UTAH, LLC	9. API NUMBER: 43041300370000
3. ADDRESS OF OPERATOR: One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503	PHONE NUMBER: 616 458-1150 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1680 FNL 2265 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 17 Township: 23.0S Range: 01.0W Meridian: S	9. FIELD and POOL or WILDCAT: COVENANT COUNTY: SEVIER STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 10/1/2016 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input checked="" type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Wolverine Gas and Oil Co. of Utah, LLC (a subsidiary of Wolverine Gas and Oil Corp.) seeks to renew the Temporarily Abandoned status of Wolverine Federal 17-6, in the Covenant Field. The well has been inactive since production equipment was removed and a CIBP/cement plug was set above all perfs (@ 6270') in July, 2012. Wolverine is actively monitoring well production and BHP's at Covenant in consideration of infill drilling and CO2-flooding options. If a suitable source of CO2 is identified, 17-6 could contribute significantly towards enhancing the field's oil recovery. In its present state, 17-6 poses minimal environmental/safety concerns. Again, all its perfs are isolated and the well only drilled/cased in 2005 so its mechanical integrity should be sound. And, even though the well is shut-in, it is continually monitored along with 4 other, active wells on the same well pad.

REQUEST DENIED
Utah Division of
Oil, Gas and Mining

Date: January 09, 2017

By: *Derek Quist*

Please Review Attached Conditions of Approval

NAME (PLEASE PRINT) Ron Meredith	PHONE NUMBER 616 929-1932	TITLE Sr. Production Engineer
SIGNATURE N/A	DATE 9/27/2016	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43041300370000

Did not meet the requirements of R649-3-36. No showing of integrity or that the well did not pose a risk to health, safety or environment.